Environment Canada

2008–2009

Report on Plans and Priorities

John Baird
Minister of the Environment

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SECTION I – OVERVIEW

Minister's Message

As Minister of the Environment, I am pleased to present the *2008–2009 Report on Plans and Priorities* for Environment Canada.

Over the last year I am proud to say that our Government has taken real action to protect and preserve our environment.

On climate change, our Government has an aggressive plan to reduce greenhouse gas emissions and air pollution. Right now, Canada is on a path to achieve absolute reductions in our annual greenhouse gas emissions of 20 percent by 2020 and cut industrial air pollution in half by 2015.

We have also taken a principled position on the world stage when it comes to fighting climate change. At the recent United Nations Conference on Climate Change in Indonesia, Canada worked to achieve three main objectives:

- bringing the world together to launch negotiations for a post-2012 agreement
- finding consensus on what the building blocks for a framework should be
- fixing 2009 as the end date for negotiations

We were successful in achieving those goals, in concert with the United Nations.

We have also taken real action to conserve pristine land across Canada so future generations can experience the natural wonders of our great nation. For example, in the past year, we took action to protect the Ramparts River and Wetlands in the Northwest Territories, one of Canada's natural treasures. By withdrawing massive areas like the Ramparts River and Wetlands from industrial development, we will protect some of the most impressive ecological and cultural wonders in the North for generations to come. Another example of our good work is our partnership with the Nature Conservancy of Canada to purchase and preserve ecologically valuable land across Canada.

Our natural environment is one of our country's greatest assets and our Government is committed to dealing aggressively with its protection. That is why in the most recent budget, we provided $22 million for the hiring of 100 new enforcement officers to join the 213 already at work. Protecting our natural treasures means getting tough on those who poach, plunder or pollute, and enforcement officers play a key role in ensuring that this happens.

On water, our Government's Action Plan for Clean Water will help clean up our lakes and oceans, bolster our fisheries science and enforcement, and improve water and wastewater infrastructure in all communities. We made funding announcements to help clean up important bodies of water like Lake Winnipeg and Lake Simcoe, and we announced our intent to improve sewage treatment across Canada and to get tough on those who dump raw sewage into our rivers, lakes and streams.

In closing, as Minister of the Environment, I am served by a professional public service that helps implement important policies and decisions on a daily basis. I want to therefore thank Environment Canada employees for working hard to turn our vision of a greater natural Canada into reality.

Let me be absolutely clear. Our Government is firmly committed to the protection, improvement and conservation of our country's natural legacy. The objectives outlined in this report build on the foundation we are laying for Canada's future environmental sustainability. Therefore, I encourage all parliamentarians and Canadians to read this report.

The Honourable John Baird, P.C., M.P.
Minister of the Environment

Management Representation Statement

I submit for tabling in Parliament, the *2008–2009 Report on Plans and Priorities* (RPP) for Environment Canada.

This document has been prepared based on the reporting principles contained in the *Guide to the Preparation of Part III of the 2008–2009 Estimates: Reports on Plans and Priorities and Departmental Performance Reports*:

- It adheres to the specific reporting requirements outlined in the Treasury Board of Canada Secretariat guidance.
- It is based on the Department's Strategic Outcomes and Program Activities that were approved by Treasury Board.
- It presents consistent, comprehensive, balanced and reliable information.
- It provides a basis of accountability for the results achieved with the resources and authorities entrusted to it.
- It reports finances based on approved planned spending numbers from the Treasury Board of Canada Secretariat.

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Michael Horgan
Deputy Minister of the Environment

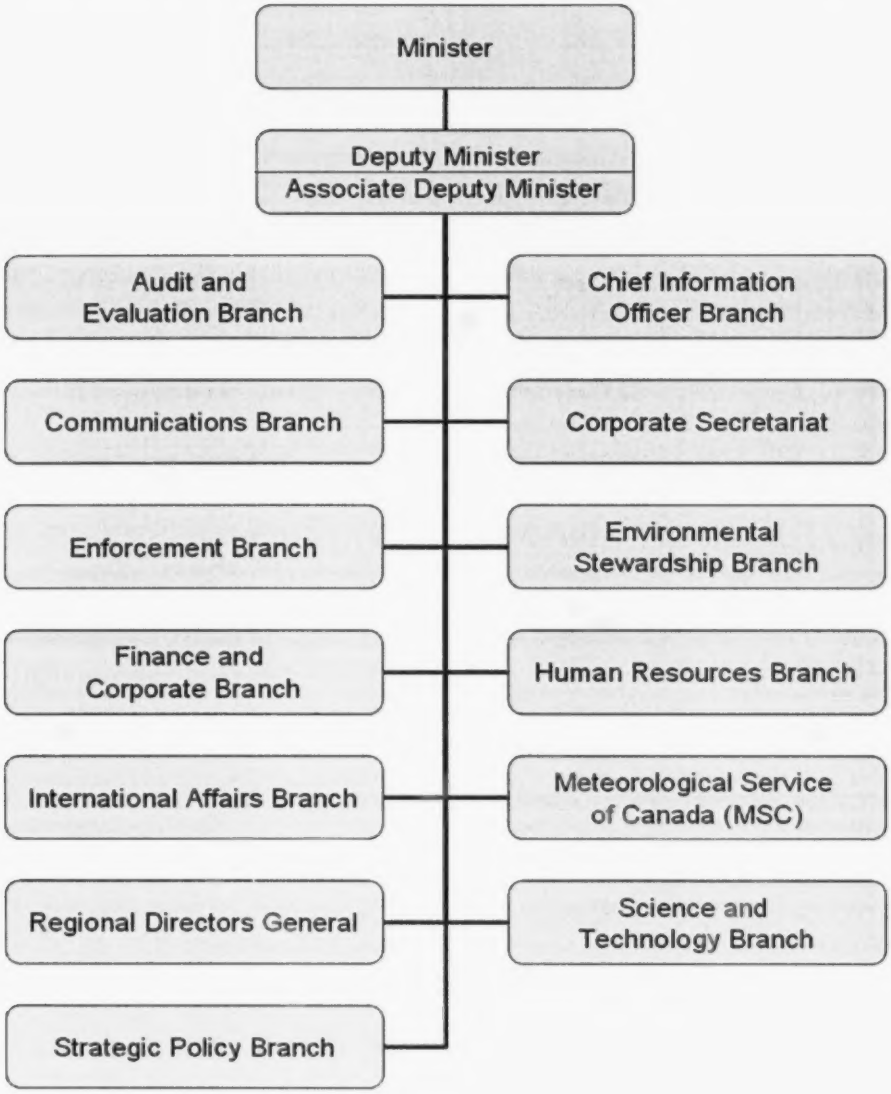
Raison d'être

A number of acts and regulations provide the Department with its mandate and allow it to carry out its programs. Under the *Department of the Environment Act*, the powers, duties and functions of the Minister of the Environment extend to and include matters relating to

- the preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
- renewable resources, including migratory birds and other non-domestic flora and fauna;
- water;
- meteorology;
- the enforcement of any rules or regulations made by the International Joint Commission relating to boundary waters; and
- the coordination of the policies and programs of the Government of Canada respecting the preservation and enhancement of the quality of the natural environment.

Additional authorities are provided in the other acts and regulations administered by the Department, including the *Species at Risk Act* and the *Canadian Environmental Protection Act, 1999*. For details on departmental legislation and regulations see: www.ec.gc.ca/EnviroRegs.

Organizational Information



2007–2008 to 2008–2009 Program Activity Architecture (PAA) Crosswalk

Environment Canada received Treasury Board approval to modify its PAA for 2008–2009. The table below provides a crosswalk between Environment Canada's 2007–2008 and 2008–2009 Program Activity Architectures.

		Environment Canada's 2008–2009 Program Activities ($ millions)										
Environment Canada's 2007–2008 Program Activities ($ millions)		Biodiversity is conserved and protected	Water is clean, safe and secure	Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	Improved knowledge and information on weather and environmental conditions influences decision-making	Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	Canadians adopt sustainable consumption and production approaches	Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced	Revitalization of the Toronto waterfront	Harbourfront Corporation	Totals
	Biodiversity is conserved and protected	134.8										**134.8**
	Water is clean, safe and secure		81.6									**81.6**
	Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes			32.6								**32.6**
	Improved knowledge and information on weather and environmental conditions influences decision-making				127.9							**127.9**
	Canadians are informed of, and respond appropriately to, current and predicted environmental conditions					151.0						**151.0**
	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced						185.8					**185.8**
	Canadians adopt sustainable consumption and production approaches							48.0				**48.0**
	Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced								103.8			**103.8**
	Subtotal	134.8	81.6	32.6	127.9	151.0	185.8	48.0	103.8	87.0	5.0	**957.5**
	Adjustments	6.2	13.2	0.3	2.3	2.0	12.2	1.4	48.3	0.0		**85.9**
	Total Planned Spending	**141.0**	**94.8**	**32.9**	**130.2**	**153.0**	**198.0**	**49.5**	**152.0**	**87.1**	**5.0**	**1,043.5**

Environment Canada required amendments to its previously approved PAA to reflect the Order in Council transferring responsibility for the Toronto Waterfront Revitalization Initiative (TWRI) from the President of the Treasury Board to the Minister of the Environment.

Totals may differ within and between tables due to the rounding of figures.

Voted and Statutory Items Displayed in the Main Estimates

2008–2009 ($ millions)			
Vote or Statutory Item	Truncated Vote or Statutory Wording	**2008–2009 Main Estimates**	2007–2008 Main Estimates
1	Operating expenditures	**665.2**	662.6
5	Capital expenditures	**43.5**	40.0
10	Grants and contributions	**165.1**	59.7
(S)	Minister of the Environment salary and motor car allowance	**0.1**	0.1
(S)	Contributions to employee benefit plans	**83.6**	79.5
	Total Department	**957.5**	**842.0**

$2.6 million - Operating

The increase in Operating is mainly due to:
$17.2M in renewed and new incremental funding for implementation of the federal *Species at Risk Act*
$8.4M increase in funding for the Chemicals Management Plan
$6.5M in new funding for collective agreements for several occupational groups
$4.1M increase in funding for the International Polar Year initiative
$2.0M increase in funding for major natural resource projects
$1.6M increase in funding for the Health of the Oceans initiative
$1.5M vote transfer to provide the Toronto Waterfront Revitalization Initiative with the funds needed to administer the program

These increases are mainly offset by the following decreases:
$8.3M in vote transfers aimed at providing sufficient capital spending levels as well as to enhance program delivery by providing the required transfer payments resources
$5.4M decrease due to the termination of the Agriculture Policy Framework
$4.6M decrease for the International Actions component of Canada's Clean Air Agenda
$4.2M decrease in funding level requirements for the activities under the Clean Air Regulatory Agenda
$3.7M reduction to meet Budget 2007 commitment for cost efficiency savings
$3.6M decrease for the Climate Change Scenarios component of Canada's Clean Air Agenda
$3.1M for an operating budget transfer
$2.9M decrease for Action Plan 2000
$2.3M for a planned reduction in the level of activities in support of the Meteorological Service of Canada Transformation
$1.0M decrease for Genomics

$3.5 million - Capital

The increase in Capital is mainly due to:
$4.9M due to vote transfers aimed at providing sufficient capital spending levels

This increase is mainly offset by the following decrease:
$1.3M due to funding level changes for the Chemicals Management Plan

$105.4 million - Grants and contributions

The increase in Grants and contributions is mainly due to:
$85.0M increase due to the reprofiling of funds for the Toronto Waterfront Revitalization initiative from 2007–2008 to 2008–2009
$12.5M increase for the new agreement between the Government of Canada and the Canada Foundation for Sustainable Development Technology for delivery of the Next-generation Biofuels Fund
$7.3M in renewed and new incremental funding for implementation of the federal *Species at Risk Act*
$5.0M increase to meet the obligations outlined in the Harbourfront Centre Funding Program
$3.4M in vote transfers aimed at enhancing program delivery

These increases are mainly offset by the following decreases:
$5.5M decrease for the International Actions component of the Clean Air Agenda
$1.1M decrease to reflect decisions made by the Expenditure Review Committee
$1.0M due to the reprofiling of funds from 2006–2007 to 2007–2008 for the Invasive Alien Species Strategy

Departmental Planned Spending and Full-time Equivalents

Program Activities ($ millions)	Forecast Spending 2007–2008*	**Planned Spending 2008–2009**	Planned Spending 2009–2010	Planned Spending 2010–2011
Biodiversity is conserved and protected	112.0	**135.9**	132.8	128.7
Water is clean, safe and secure	84.3	**84.9**	79.0	69.9
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	30.9	**32.7**	30.7	29.9
Improved knowledge and information on weather and environmental conditions influences decision-making	140.8	**143.2**	143.6	140.0
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	200.0	**194.4**	196.9	192.3
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	185.2	**190.7**	190.1	186.5
Canadians adopt sustainable consumption and production approaches	26.5	**48.0**	49.4	64.1
Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced	130.4	**103.8**	102.1	102.7
Revitalization of the Toronto waterfront		**87.0**	126.0	16.4
Harbourfront Corporation		**5.0**	5.0	5.0
Budgetary Main Estimates (gross)	910.2	**1,025.6**	1,055.8	935.5
Less: Respendable Revenue	(68.2)	**(68.1)**	(69.1)	(69.0)
Total Main Estimates	842.0	**957.5**	986.7	866.5
Adjustments:				
To 2007–2008 through Environment Canada's Supplementary Estimates				
Transfer from Treasury Board Secretariat - For the revitalization of the Toronto Waterfront through investments in infrastructure and urban development (Toronto Waterfront Revitalization Initiative) as a result of change of Ministers' portfolio	234.3			
Funding for the implementation of the *Species at Risk Act* to continue the stabilization and recovery of wildlife species at risk in Canada	26.1			
Funding related to government advertising programs *(horizontal item)*	8.8			
Funding to cover the incremental costs in the Pacific Environment Centre Site lease payments and the costs of the Montreal Protocol Meeting	5.7			
Funding for the Harbourfront Centre to continue its cultural and recreational programming on the Toronto waterfront	5.0			
Funding to prepare for Canada's participation in International Polar Year 2007–2008, an extensive international research program in the Arctic and Antarctic *(horizontal item)*	4.3			
Funding for Meteorological Service of Canada high-priority projects	4.0			
Funding related to the assessment, management and remediation of federal contaminated sites *(horizontal item)*	3.9			
Funding to enhance environmental law enforcement capacity	3.7			
Funding to improve the performance of the regulatory system for major natural resource projects that are subject to a comprehensive study, a panel review or a multijurisdictional screening under the *Canadian Environmental Assessment Act (horizontal item)*	2.3			
Grant to the Canada Foundation for Sustainable Development Technology	1.6			
Funding to support the Health of the Oceans initiative to contribute to the National Water Strategy *(horizontal item)*	1.3			
Spending authorities available within the vote due to a realignment of resources between salaries and other operating costs	(3.6)			
Other technical adjustments	(3.6)			

To 2007–2008 through adjustments other than Environment Canada's Supplementary Estimates				
Operating budget carry forward	13.3			
Reimbursement of eligible salary costs	13.0			
Salary increases due to the signing of new collective agreements and other salary costs	9.9			
Incremental funding in support of the Internal Audit Policy	0.4			
Reprofiling - Toronto Waterfront Revitalization Initiative	(139.2)			
Employee Benefit Plan (EBP)	4.9			
To Planned Spending Levels				
Funding for implementation of the National Vehicle Scrappage Program in support of Canada's Clean Air Agenda		**31.4**	29.9	28.9
Funding to enhance environmental law enforcement capacity		**16.5**	14.4	14.0
Funding for implementation of the Clean Air Regulatory Agenda		**15.7**	17.9	15.0
Funding for implementation of the Freshwater Initiatives of the National Water Strategy		**12.2**	24.7	25.9
Funding for International Actions in support of Canada's Clean Air Agenda		**8.5**	8.4	8.4
Funding to cover the incremental costs in the Pacific Environment Centre Site lease payments and the costs of the Montreal Protocol Meeting		**1.7**		
Other technical adjustments		**(0.2)**	(0.2)	(0.2)
Total Adjustments	196.0	**85.9**	95.2	92.1
Total Planned Spending	1,038.0	**1,043.5**	1,081.9	958.5
Less: Non-Respendable Revenue	(11.1)	**(13.1)**	(13.2)	(13.2)
Plus: Cost of services received without charge	63.4	**82.7**	83.4	83.7
Net Cost of Program	1,090.3	**1,113.1**	1,152.1	1,029.1
Full-time Equivalents	6,454	**6,732**	6,800	6,768

* Reflects the best forecast of total net planned spending to the end of the fiscal year.

Totals may differ within and between tables due to the rounding of figures.

Summary Information

Financial Resources ($ millions)

2008–2009	2009–2010	2010–2011
1,043.5	1,081.9	958.5

Human Resources (FTEs)

2008–2009	2009–2010	2010–2011
6,732	6,800	6,768

Departmental Priorities

Name	Type
1. Reducing greenhouse gas emissions and air pollution	Ongoing
2. Ensuring water quality and quantity	Ongoing
3. Supporting clean land and biodiversity	Ongoing
4. Providing quality meteorological and environmental services to Canadians	Ongoing
5. Delivering results on environmental enforcement	Ongoing
6. Protecting Canadians from toxic substances	Ongoing
7. Supporting sustainable urban development and infrastructure renewal in the Toronto waterfront area	New
8. Improving integrated business and human resources planning in the Department	Ongoing

Program Activities by Strategic Outcome

($ millions)	Expected Results	Planned Spending			Contributes to the following priority
		2008–2009	2009–2010	2010–2011	
Strategic Outcome: Canada's natural capital is restored, conserved, and enhanced					2,3,5 and 8
Biodiversity is conserved and protected	Wildlife is conserved and protected Land and landscapes are managed sustainably	**141.0**	135.9	131.6	
Water is clean, safe and secure	Aquatic ecosystems are conserved and protected.	**94.8**	100.7	92.7	
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	Integrated information and knowledge enables integrated approaches to protecting and conserving priority ecosystems Information, assessment and understanding of the state of ecosystem sustainability supports decision-making	**32.9**	30.7	29.9	
Strategic Outcome: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians					4 and 8
Improved knowledge and information on weather and environmental conditions influences decision-making	Information from environmental monitoring activities is sufficient to identify, analyze, study and predict weather and climate conditions, air quality, and clean water availability Science is produced to support weather and environmental services, decision-making and policy development	**130.2**	127.9	124.2	
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Canadians are better informed through improved weather and environmental predictions and services and leveraged partnership opportunities Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and its partners where there is common interest Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment	**153.0**	154.0	149.4	
Strategic Outcome: Canadians and their environment are protected from the effects of pollution and waste					1,5,6 and 8
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are assessed Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are managed Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are mitigated	**198.0**	194.2	190.6	
Canadians adopt sustainable consumption and production approaches	Canadians and decision-makers are informed about the risks posed by environmental pollution and greenhouse gases and are aware of the trends and future actions to take Strategic approaches effectively promote sustainable production and consumption	**49.5**	50.6	65.2	
Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced	Strategic approaches to manage air pollutants and greenhouse gas emissions effectively reduce risks Risks from air pollutants and greenhouse gas emissions from industrial sectors are managed Risks from air emissions and greenhouse gas emissions from the transportation sector are managed	**152.0**	156.9	153.5	

($ millions)	Expected Results	Planned Spending			Contributes to the following priority
		2008–2009	2009–2010	2010–2011	
Strategic Outcome: Sustainable urban development and infrastructure renewal in the Toronto waterfront area					7
Revitalization of the Toronto waterfront	Increased accessibility to and usage of waterfront area Revitalized urban infrastructure Improved environmental management of the waterfront area	**87.1**	126.0	16.4	
Harbourfront Corporation	Stable foundation for Harbourfront Corporation administration and operations Ongoing community access	**5.0**	5.0	5.0	

Departmental Plans and Priorities

Introduction

The most recent Speech from the Throne clearly outlines the Government of Canada's environmental agenda and demonstrates its commitment to addressing threats to our environment in a pro-active and comprehensive manner. Protecting the health of Canadians and ensuring our quality of life, while balancing environmental protection and economic growth, is a top priority for the Government. Maintaining such a balanced approach is at the heart of environmental sustainability.

In pursuing these goals, Environment Canada is focused on outcomes and achievable results that will create a healthier environment now and for future generations. Through strong, clear environmental laws and regulations coupled with the effective use of market forces, governments can create incentives and conditions in which businesses and people protect our natural environment and respond to environmental challenges with entrepreneurial innovation and personal commitment.

Operating Environment

Context

Canada is particularly rich in natural assets, containing within its borders 20 percent of the world's natural areas, 10 percent of the world's forests, and 7 percent of the world's renewable fresh water. The Canadian economy benefits greatly from this wealth. Roughly 22 percent of Canada's gross domestic product (GDP) is derived from resources such as energy products, forests and agriculture. While Canada is blessed with a richness of natural assets, improved management of these resources is a central need.

Canada is not alone in its efforts to seek out effective ways to manage the environment. The Organisation for Economic Co-operation and Development (OECD) estimates that environmental impacts on human health cost OECD countries 0.5 percent of GDP, and that 20 percent of the total burden of disease in industrialized countries can be linked to environmental factors.

The Government has indicated that the Intergovernmental Panel on Climate Change (IPCC) has presented compelling scientific proof that the climate has changed because of human action and industrial growth, and it accepts the findings of the Fourth Assessment Report.

Health Considerations

There is growing evidence that the state of the environment is significantly affecting human health. Smog, for example, can worsen existing heart and breathing problems and provokes thousands of premature deaths each year. Smog causes hundreds of thousands of severe episodes of asthma and bronchitis annually, particularly among children and the

elderly. The Ontario Medical Association estimates that air-related illnesses result in approximately 60,000 emergency visits and 16,000 hospital admissions annually in Ontario alone. Data show that 12 percent of children are estimated to have asthma and it is now a leading cause of school absenteeism. An analysis in eight major Canadian cities concluded that air pollution is a factor in 1 of every 12 deaths—a total of 5,800 preventable deaths per year.[1]

Some of the same pollutants that cause smog also impair ecosystems and wildlife. Poor air quality, resulting in acid deposition and long-range transport of contaminants, remains one of the most serious threats to biodiversity, forests and freshwater ecosystems. Hazardous air pollutants, such as mercury, can be deposited into water and pose risks to wildlife and humans through their accumulation up the food chain.

Air quality is of increasing concern to Canadians: 60 percent consider air pollution to be the most important environmental issue. Over half believe it will eventually have a negative impact on their health, and a third believe that air pollution is already having adverse impacts.

Economic Considerations

The stress on, and resulting degradation of, our environment carries real economic costs. These are associated with, among other things, a decline in resource and labour productivity and an increased burden on the health care system. In the province of Ontario alone, poor air quality has resulted in an estimated $374 million in lost productivity in 2005 and direct health care costs of $507 million per year.[2]

These types of costs cumulatively affect all regions and sectors, and together cumulatively represent a serious challenge to Canada's long-term prosperity. In the Okanagan Valley and in Alberta's oil sands region, for example, economic opportunities are increasingly constrained by water availability. In the Prairies, Atlantic Canada and elsewhere, invasive pests that harm crops and forests are estimated to cost Canada's economy $7.5 billion each year.[3]

Natural disasters, particularly weather-related ones such as severe thunderstorms, winter storms, freezing rain, floods or drought, also take their toll on the economy. Recent studies reveal that Canadian natural disasters are on the rise in both size and frequency. Most of these disasters have occurred within the last decade, and the Canadian government has spent more than $13 billion to restore damaged infrastructure and uninsured properties.[4] Also, the insurance industry expected to pay out more than $500 million in the wake of a storm that hit southern Ontario on August 19, 2005, and over

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[1] Ontario Medical Association, *The Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates* (June 2005). Available at www.oma.org/Health/smog/report/ICAP2005_Report.pdf.

[2] Ibid

[3] *An Invasive Alien Species Strategy for Canada*, September 2004. www.cbin.ec.gc.ca/issues/ias.cfm

[4] Ontario Medical Association, *The Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates (June 2005)*. Available at www.oma.org/Health/smog/report/ICAP2005_Report.pdf.

$1.5 billion following the ice storm that struck southern Quebec and eastern Ontario in 1998.[5]

Competitiveness in the Global Economy

Within the global economy, citizens, investors and companies are responding to the reality that environmental sustainability is an increasingly important driver of competitiveness.

This fundamental shift in how the environment is valued can be seen in the changing nature of international trade, where countries and industries are increasingly putting in place environmental standards for imported or traded goods and services.

More than ever before, industries are pressured to behave responsibly and to adopt sustainable and ethical practices. For example, the world's top wood buyers responded to campaigns calling on them to stop buying wood from endangered forests, affecting their suppliers across North America and Europe.

Investors, including banks and insurers, monitor corporate earnings related to environmental performance and liability. For example, the Carbon Disclosure Project (on behalf of 315 institutional investors representing US$41 trillion in assets) sends a yearly letter to the world's largest 500 companies demanding disclosure of carbon-related financial risks and strategies.[6]

Financial indices such as the Dow Jones Sustainability Index have emerged, adding credence to arguments that environmental sustainability is a key component of economic competitiveness in the 21st century.

The Environment is a Key Priority of the Government of Canada

The Government of Canada has provided significant new direction on environmental policy and programs.

Advantage Canada, released on November 23, 2006 with the Government's *Economic and Fiscal Update 2006*, stated that protecting Canada's environment is central to the Advantage Canada plan and an important source of long-term economic strength for Canada. In particular the plan recognized that

- a healthier and cleaner environment enriches the quality of life in Canada, and attracts and retains the highly skilled and mobile people Canada needs to succeed in the global economy;
- responsible development of our natural resources ensures future jobs and wealth creation across the country;
- energy efficiency and environmentally sustainable business practices are increasingly important competitive advantages for our businesses; and

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[5] Insurance Bureau of Canada, *Facts of the general insurance industry in Canada 2006.* Available at www.ibc.ca/en/Need_More_Info/documents/FactsBook2006.pdf

[6] *CDP5 FT 500 Report* (2007). Available at www.cdproject.net/cdp5reports.asp

- Canada has the potential to be a leader in the rapidly emerging business of environmental technology.

Budget 2007 invested significant new resources toward cleaning air and water, reducing greenhouse gas emissions, combating climate change, and protecting the natural environment. The Budget identified four environmental priorities under the general theme of "A Better Canada: Ensuring a Cleaner, Healthier Environment":

- Cleaner energy and better energy efficiency
- Promoting cleaner transportation
- Protecting Canada's natural heritage
- Canada's National Water Strategy

Budget 2007 included new investments in the environment for 20 programs that total $4.5 billion. The following are of particular interest to Environment Canada:

- $1.5 billion in new funding for the Clean Air and Climate Change Trust Fund
- $2 billion to support renewable fuel production
- $275 million to preserve Canada's natural heritage and ecologically sensitive lands
- $110 million to strengthen the implementation of the *Species At Risk Act*
- $93 million for a new National Water Strategy
- $22 million to support a 50 percent increase in the number of environmental enforcement officers hired

The October 2007 Speech from the Throne outlined that improving our environment is one of the five key priorities of the Government. Specifically with respect to the environment, the Government committed to the following:

- creating an integrated northern strategy focused on strengthening Canada's sovereignty, protecting our environmental heritage, promoting economic and social development, and improving and devolving governance
- implementing a national strategy to reduce Canada's total greenhouse gas emissions 60 to 70 percent by 2050, with a 20 percent reduction by 2020
- bringing forward the first-ever national air pollution regulations. In so doing, our government will put Canada at the forefront of clean technologies to reduce air pollution and greenhouse gas emissions
- establishing a carbon emissions trading market that will give business the incentive to run cleaner, greener operations
- promoting a cleaner environment by investing in public transport and water treatment, and by cleaning up contaminated sites
- implementing a new water strategy to help clean up our major lakes and oceans and to improve access to safe drinking water for First Nations
- bolstering the protection of our water and land through tougher environmental enforcement that will make polluters accountable

Our Priorities

The Department's priorities fully reflect and support the directions of the Government regarding the environment.

For 2008–2009, Environment Canada is focusing on seven program priorities and one management priority that will advance its agenda of measurable environmental outcomes and demonstrable results.

The seven program priorities are as follows:

1- Reducing Greenhouse Gas Emissions and Air Pollution

On April 26, 2007, the Government announced *Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution.* The ongoing implementation of the Government's Clean Air Agenda will be a priority for Environment Canada in 2008-2009. This year, the Government intends to introduce regulations establishing mandatory targets for the reduction of both greenhouse gases and air pollution, regulation of the fuel efficiency of cars and light duty trucks and a strengthening of energy efficiency standards for a number of energy-consuming products, including washers and dryers.

Mandatory targets, coupled with industry's ability to meet some of its obligations by contributing to a technology fund, will create incentives for the development and deployment of new technologies that will be central to reducing emissions and promoting continuous improvement.

Through *Turning the Corner,* the Government itself is also making investments in clean energy and transportation technologies in Canada, yielding reductions in the short-term as well as deriving long-term economic benefits from improved energy efficiency, greater competitiveness, more opportunity to sell Canadian environmental products and know-how abroad, and more jobs for Canadians. Establishment of a carbon emissions trading market will also give business the incentive to run cleaner, greener operations.

Taken together and combined with actions being taken by provincial and territorial governments, the Government is committed to a 20 percent reduction in greenhouse gas emissions by 2020 and a 60–70 percent reduction by 2050 compared to 2006 emission levels.

In addition to its lead role in domestic climate change policy, Environment Canada will continue to support the Government of Canada in its commitment to playing a constructive role in developing a new international climate change regime that establishes binding targets for all major emitters.

2- Ensuring Water Quality and Quantity

In Budget 2007 and the Speech from the Throne, the Government committed itself to the Action Plan for Clean Water to help clean up Canada's major lakes and oceans and improve access to safe drinking water for First Nations.

The Action Plan for Clean Water sets the direction for concrete action by focusing on improving the quality of drinking water, cleaning up polluted waters, better understanding and predicting changes in water levels in basins such as the Great Lakes, and protecting key ecosystems. Already a number of initiatives have been launched as part of the plan—a number of targeted investments have been made in the Great Lakes and in lakes Simcoe and Winnipeg.

Looking ahead, in 2008–2009, Environment Canada will continue work under this action plan by engaging with provinces to put in place new national standards for sewage treatment. Environment Canada will implement its responsibilities under the action plan primarily through regulations under the *Fisheries Act*. These regulations and other actions with partners will improve water quality for First Nations. Further, on regulatory action, Environment Canada will propose amendments to its existing regulations on phosphate content in detergents to address concentrations in dishwashing detergents. Environment Canada will also continue to support the implementation of the Health of the Oceans Initiative.

3- Supporting Clean Land and Biodiversity

Environment Canada will continue to work towards cleaning up contaminated lands and protecting biodiversity. Through the Government's infrastructure plan 2008–2009, contaminated sites and brownfields will be targeted for clean-up by Environment Canada and other departments.

With regard to biodiversity, Budget 2007 committed additional resources to better implement the *Species at Risk Act*. In addition, through work by Environment Canada and other departments and agencies, such as Parks Canada, announcements were made throughout 2007 establishing a number of new conservation areas such as a massive expansion of Nahanni National Park. In addition, the Government also announced the establishment of the world's largest protected freshwater marine area in northern Lake Superior. In 2008–2009, Environment Canada will continue to work with other departments and agencies to build upon this process of expanding and establishing Canada's protection of sensitive areas.

Throughout these activities a comprehensive, outcomes-based approach will be used, focusing on the following: healthy and diverse ecosystems, viable populations of species, access to genetic resources and sustainable use of biological resources.

4- Providing Quality Meteorological and Environmental Services to Canadians

Environment Canada will continue to provide Canadians with accurate and up-to-date meteorological and environmental forecasts, services and information that enable effective decision-making. This information is utilized by all Canadians 24 hours a day, every day and continues to be an important factor in reducing the impacts on society resulting from hazardous weather and environmental conditions.

5- Delivering Results on Environmental Enforcement

Following through on the Government's commitment, in Budget 2007, to improve environmental enforcement, Environment Canada will continue to work towards putting over 100 more enforcement officers in the field. This will strengthen the Department's capacity to enforce environmental protection laws and achieve better environmental outcomes.

To further strengthen the Government's ability to successfully prosecute environmental crimes, the recent Speech from the Throne underscored the Government's intention to bolster environmental protection by committing to "tougher environmental enforcement that will make polluters accountable."

6- Protecting Canadians from Toxic Substances

Environment Canada plays a key role in protecting the environment and Canadians from the risks of chemical substances under a number of laws, including the *Canadian Environmental Protection Act, 1999.*

To strengthen its ability to regulate and monitor harmful substances and to protect the health of Canadians, the Government has implemented a Chemicals Management Plan. This includes a number of measures to reduce the risks posed by hazardous chemicals. Canada is the first country in the world to categorize the thousands of chemical substances that were in use before comprehensive environmental protection laws were created. The approach underpinning this success has changed how Environment Canada and industry work together and has provided a comprehensive way to set science-based environmental and health priorities.

To date, Environment Canada has identified 200 high-priority substances and is working with industry within a three-year timeframe to develop a satisfactory management plan for each of these substances. Information received from industry, the world's scientific community, environmental and health groups, and the public, will all be used to decide what actions are to be taken in regard to each of these chemicals to protect the environment and the health of Canadians.

7- Supporting Sustainable Urban Development and Infrastructure Renewal in the Toronto Waterfront Area

The responsibility for the **Toronto Waterfront Revitalization Initiative** was recently transferred from the President of the Treasury Board to the Minister of the Environment. The mission and expected results of the Initiative have not changed. Under this initiative, Environment Canada manages a contributions program focused on investments in infrastructure and urban renewal. The purpose of the Initiative is to revitalize the Toronto waterfront through investments in both traditional city-building infrastructure, such as local transportation and sewers, and more contemporary urban development, including parks, green spaces, tourism-related facilities and the rebirth of underutilized post-industrial areas. It is expected that investments in these areas will result in social and economic benefits for the Toronto region.

The management priority is as follows:

8- Improve Integrated Business and Human Resources Planning in the Department

The Public Service Renewal initiative led by the Clerk of the Privy Council acknowledges the importance of integrated planning. Accordingly, Environment Canada is working toward implementing the second phase of a rigorous process where human resources planning is integrated with departmental business planning. This process continues to build on extensive lessons learned through consultation, both from the previous planning cycles and from previous Management Accountability Framework (MAF) assessments.

Our Plans

The program plans put forward to deliver on these priorities support the departmental Strategic Outcomes and are implemented through Environment Canada's approved Program Activities. These are described by Strategic Outcome and detailed by Program Activity in Section II of the Report on Plans and Priorities.

Science continues to play a fundamental role in enabling Environment Canada to deliver on its mandate, in informing environmental decision-making and regulations, and in supporting the delivery of services to Canadians. To ensure that the Department has access to the science it needs, it has developed a long-term science plan that encourages integration of science within the Department and collaboration with partners outside the Department. In the coming year, Environment Canada will further advance the strategic directions of its science plan, and take steps to address priority science management issues and integrate the Science Plan with its new technology plan. Efforts to implement this integrated science and technology plan will be guided by departmental priorities and by the federal Science and Technology Strategy, entitled Mobilizing Science and Technology to Canada's Advantage.

Environment Canada has a leadership role in the implementation of the government's environmental agenda. In responding to these significant expectations, Environment Canada is transforming the way it does business in a number of areas. For example, there is a much greater emphasis on regulation and enforcement programs.

Sustaining program delivery capacity in all areas where Environment Canada intervenes is a challenge given that the Department's resources are composed of a mix of ongoing, short-term, and one-time funding. Also, the Department's ability to maintain and preserve its knowledge capital is jeopardized by the difficulty of recruiting and retaining highly specialized staff.

These challenges, their potential impact on results and measures to respond to them need to be consistently factored into the Department's priority-setting, plans and program delivery.

SECTION II – ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME

Strategic Outcome 1: Canada's natural capital is restored, conserved and enhanced

Description

Natural capital includes the raw materials used in the production of manufactured goods, the land and water resources that anchor our quality of life and support economic activity, as well as living ecosystems that cleanse polluted air and water, reinvigorate soil, and contribute to a predictable and stable climate. Environment Canada works to conserve, restore and enhance Canada's natural capital by developing and implementing innovative strategies, programs and partnerships. The purpose of our work in this area is to ensure that Canada's natural capital is sustained for present and future generations. This work has been organized into three Program Activities:

1. Biodiversity is conserved and protected.
    a. Wildlife is conserved and protected.
    b. Land and landscapes are managed sustainably.
2. Water is clean, safe and secure.
    a. Aquatic ecosystems are conserved and protected.
3. Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes.
    a. Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems.
    b. Information, assessment and understanding of the state of ecosystem sustainability support decision-making.

Planned Financial and Human Resources by Program Activity

Program Activities ($ millions)	2008–2009		2009–2010		2010–2011	
	$	FTEs	$	FTEs	$	FTEs
Biodiversity is conserved and protected	**141.0**	**900**	135.9	892	131.6	888
Water is clean, safe and secure	**94.8**	**709**	100.7	687	92.7	676
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	**32.9**	**248**	30.7	238	29.9	237
Totals	**268.7**	**1,857**	**267.3**	**1,817**	**254.2**	**1,801**

Totals may differ within and between tables due to the rounding of figures.

Expected Results ar ' Key Measures

Program Activity	Expected Results	Key Indicators
Biodiversity is conserved and protected	Wildlife is conserved and protected	Improvement in the status of threatened and endangered species Healthy levels of migratory bird populations No Canadian species are threatened from international trade
	Land and landscapes are managed sustainably	Size of area of conserved wildlife habitat that is under direct Environment Canada protection or protected through departmental partnerships and influence
Water is clean, safe and secure	Aquatic ecosystems are conserved and protected	Accrued economic, social and environmental benefits to Canadians through sustainable and productive use of water resources Access for Canadians to safe drinking water and protection of human health from water quality and quantity-related threats
Canadians adopt approaches to ensure the sustainable use and management of natural capital and working landscapes	Integrated information and knowledge enable integrated approaches to protecting and conserving priority ecosystems	Improvement in environmental indicators for priority ecosystems Classification of Canadian ecosystems Selection of priority ecosystems Implementation of Priority Ecosystem Initiatives
	Information, assessment and understanding of the state of ecosystem sustainability supports decision-making	Implementation of new management approaches in project environmental assessments and strategic environmental assessments Availability of relevant and reliable information to assess ecosystem status and change

Plans and Priorities

Over the next three years, Environment Canada will pursue the following plans and priorities for its Natural Capital Strategic Outcome and related Program Activities.

Strengthen approaches and ensure consistent application of laws to protect Canada's biodiversity.

- Improve program and policy mechanisms supporting the *Species at Risk Act*, in response to the recommendations made in the Formative Evaluation of Federal Species at Risk Programs and by the Minister's Round Table on the *Species at Risk Act*.
- Improve the management of protected areas and seek opportunities to enhance protected areas networks, including protecting sites in the Northwest Territories Protected Areas Strategy.
- Implement the North American Bird Conservation Initiative and, under the *Migratory Birds Convention Act, 1994*, establish regulations for incidental take of migratory birds to ensure effective conservation of migratory bird populations while promoting sustainable economic development.
- Improve departmental capacity to enforce legislation and regulation related to the protection of Canada's natural capital.

Enhance federal, provincial, territorial and international collaboration to address shared water priorities.

- Deliver on Budget 2007 commitments toward the clean-up of Lake Winnipeg, Lake Simcoe and areas of concern in the Great Lakes.
- Continue science-based research and action in support of protecting our oceans and coastal areas.

Strengthen knowledge and approaches that ensure sustainable use and management of ecosystems.

- Improve the timeliness, predictability, efficiency and effectiveness of environmental assessment processes.
- Implement an ecosystem approach to environmental management, with an initial emphasis on strengthening the ecosystem knowledge base and the approaches toward the design of integrated monitoring and prediction tools. Establish clarity on strategic planning and structural issues of the ecosystem approach as recommended in the evaluation of the Georgia Basin Action Plan.
- Continue to generate timely knowledge and information on toxic chemicals and disease factors impacting the health of wildlife and the quality of their environment.

Program Activity 1A – Biodiversity is conserved and protected

Results Context

Our land, fresh water and oceans, and the diversity of life they support, provide the basis for our health and our economy. They provide a vast array of services to human society—including life-supporting natural processes that clean the air, purify the water, pollinate plants, absorb carbon dioxide, recycle nutrients, process wastes, prevent floods, control pests and replenish soils. The services provided by natural capital are often very expensive to replace or are irreplaceable.

However, a rising human population combined with increasing demand for goods and services is resulting in the overexploitation of land and water, compromising the long-term viability of ecosystems and threatening to eliminate the services they provide. To secure our essential life support systems and our economic prosperity in Canada, we need to ensure that the continued use of our lands, waterways and oceans is done in such a way that human activities do not undermine the overall ability of the ecosystem to provide ecological goods and services. We need to ensure that viable populations of species—key elements in the maintenance of ecosystem function—are maintained and used sustainably. For landscape management and sustainability to be a success in Canada, we need to broaden our focus from simply protecting areas of land and water to managing the full continuum of ecosystems—from wilderness, parks and working landscapes, to urban centres.

Planning Context

Environment Canada's work in this Program Activity consists of activities to protect and recover species at risk; conserve migratory birds; conserve, restore and rehabilitate the habitats needed by these species to survive; protect species from the risks posed by international trade; and conduct research on status and trends related to the health of wildlife and wildlife habitat. A primary vehicle for the achievement of results under this program is the formation of strategic partnerships for the integrated management of Canada's natural capital, including the sustainable management of landscapes. Key principles in support of results under this program are the use of best available science, and the application of an ecosystem approach (i.e. an approach recognizing the complexity of ecosystems and hence the need for integrative strategies for program implementation). The ultimate goal is to ensure the protection of biodiversity within healthy ecosystems, taking social and economic considerations into account, for the benefit of present and future generations of Canadians.

Initiatives and activities in this Program Activity flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994* (MBCA 1994), the *Species at Risk Act* (SARA), the *Canadian Environmental Protection Act, 1999* (CEPA 1999); and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA).

Current Status and Future Positioning

The *Species at Risk Act* (SARA) initially came into force in 2003. The first five years of its implementation have seen significant progress. However, an evaluation of the Species at Risk (SAR) Program completed in 2006, as well as the recommendations flowing from the Minister's Round Table on SARA held in December 2006, have also highlighted a number of important challenges. Responding to these challenges remains a departmental priority. Specific areas of focus for the program in the near and medium term will include

- finalization of SAR bilateral agreements with provinces and territories;
- finalization of supporting policies under the national framework for species at risk;
- preparation for and participation in the SARA five-year parliamentary review; and
- ongoing assessment and listing of species under the Act, and development of recovery strategies and action plans for listed species.

Environment Canada will also continue its ongoing work to sustain healthy populations of migratory birds. More specifically, focus will be placed on the continued development of an improved regulatory framework, and associated monitoring and science support, to manage the incidental take of migratory birds. The Department will also complete a review of migratory bird monitoring activities, in order to rationalize efforts and ensure alignment with changing threats to populations. Long-term research on levels and effects of priority toxic substances, emerging diseases and other man-made threats to wildlife of federal interest will continue.

Landscape and ecosystem conservation activities will focus on the completion of an Environment Canada protected areas strategy and operational review; continued alignment of stewardship programs with habitat priorities; ongoing work on an ecosystem status and trends report with provinces and territories, for ministerial consideration in 2009; and preparation for the 9th meeting of the Conference of the Parties to the Convention on Biological Diversity.

Risks and Challenges

Human impacts on ecosystems are affecting the capacity of nature to continue to provide all of the essential assets and services that are needed now and for future generations. But because environmental change can take place over a long period of time, the impact and consequences of today's decisions affecting the landscape or ecosystems may not become apparent until some point in the future. Once those impacts occur, it may be difficult to remediate them easily or to restore any loss of natural capital.

Failure to ensure the conservation of migratory bird species, species at risk and species subject to international trade, or to address issues associated with wildlife disease and invasive species could lead to population declines and reduced biodiversity and ecosystem health. From a program perspective, impacts on biodiversity could result in additional listings under the *Species at Risk Act*, resulting in additional processes such as associated consultations, legal requirements and plans to develop recovery strategies.

The risks posed by not adequately preventing impacts on species and ecosystems are not only environmental – they are also socio-economic. An effective wildlife regulatory system and a sustainable landscape management regime help provide industry with regulatory certainty. They also help reduce or avoid international marketplace challenges and trade sanctions, and, furthermore, help attract foreign investment and talent by enhancing Canada's reputation as a good place to live. Protecting nature, therefore, not only maintains environmental quality, it contributes to fostering economic and social prosperity.

Robust monitoring and research programs are required to detect declines in populations of wildlife, understand the factors causing those declines, and take steps to mitigate potential problems. Environment Canada's ability to achieve desired outcomes for biodiversity conservation is therefore dependent on a solid scientific foundation. It is also strongly dependent on maintaining positive partnership arrangements with other government departments, provinces and territories, and with other stakeholders.

Further details on activities related to biodiversity:

Program Area: Wildlife is conserved and protected
Activities: Using a holistic ecosystem approach to identify, interpret and respond to wildlife conservation concerns; implementing integrated approaches to the management of land, water, air and living resources that promote conservation and sustainable use in an equitable way. Initiatives and activities in this program area flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994* (MBCA 1994), the *Species at Risk Act* (SARA), the *Canadian Environmental Protection Act, 1999* (CEPA 1999) and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA)
Expected Results: – Biodiversity is conserved and protected – Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes
Indicators: – Healthy population levels of migratory bird species and other wildlife under federal jurisdiction – Percentage of species at risk with populations that are stable, improved or recovered – Improvement in the status of threatened and endangered species – Critical habitat for birds and species at risk is effectively protected – Compliance with the requirements of the *Canada Wildlife Act*, the *Migratory Birds Convention Act, 1994*, the *Species at Risk Act*, the *Canadian Environmental Protection Act, 1999* and the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* – Decisions to mitigate pressures on wildlife are based on sound research and monitoring with consideration of the precautionary principle
Partners: Agriculture and Agri-Food Canada, Canada Border Services Agency, Canadian Food Inspection Agency, Canadian Space Agency, Fisheries and Oceans Canada, National Defence, Health Canada (Pest Management Regulatory Agency), Indian and Northern Affairs Canada, Natural Resources Canada (Canadian Forest Service), Science and Engineering Research Canada, Parks Canada, Transport Canada, U.S. Food and Drug Administration, and provincial and territorial departments responsible for wildlife biodiversity and conservation.

For further information:
Environmental Acts and Regulations (www.ec.gc.ca/EnviroRegs/ENG/Default.cfm)
Canadian Wildlife Service (CWS) (www.cws-scf.ec.gc.ca/index_e.cfm)
Species at Risk Act Public Registry (www.sararegistry.gc.ca/default_e.cfm)
CEPA Environmental Registry (www.ec.gc.ca/CEPARegistry/default.cfm)
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (www.cites.ec.gc.ca/eng/sct0/index_e.cfm)
Environmental Damages Fund (atlantic-web1.ns.ec.gc.ca/edf/)

Program Area: Land and landscapes are managed sustainably
Activities: Protecting and conserving specific critical habitats; facilitating a national evolution toward systems of integrated landscape management. Initiatives and activities in this program area flow from the legal obligations under the *Canada Wildlife Act* (CWA), the *Migratory Birds Convention Act, 1994* (MBCA 1994), the *Species at Risk Act* (SARA), and the Federal Policy on Wetland Conservation.
Expected Results: – Land and landscapes sustain the full range of ecological goods and services and are managed sustainably – Canada plays a leadership role in promoting and advancing biodiversity conservation nationally, federally and globally, particularly in developing countries, while representing Canadian interests
Indicators: – Percentage of area (km^2) of conserved wildlife habitat that is under direct Environment Canada protection or protected through departmental partnerships and influence – Amount of habitat secured for survival and recovery of species at risk
Partners: Aboriginal peoples, other government departments, provinces and territories, industry and industry associations, environmental and non-environmental non-government organizations and land donors.
For further information: Environmental Acts and Regulations (www.ec.gc.ca/EnviroRegs/ENG/Default.cfm) Canadian Biodiversity Information Network (CBIN) (www.cbin.ec.gc.ca/index.cfm) Canadian Wildlife Service (CWS) (www.cws-scf.ec.gc.ca/index_e.cfm) The Canadian Ecological Gifts Program (www.cws-scf.ec.gc.ca/egp-pde/default.asp) National Agri-Environmental Standards Initiative (NAESI) (www.tbs-sct.gc.ca/rma/eppi-ibdrp/hrdb-rhbd/naesi-inan/description_e.asp) Environmental Damages Fund (atlantic-web1.ns.ec.gc.ca/edf/) CWS Habitat Stewardship Program for Species at Risk (www.cws-scf.ec.gc.ca/hsp-pih/)

Program Activity 1B – Water is clean, safe and secure

Results Context

Water is emerging as a critical issue of the 21st century. While Canada is recognized around the world for its natural wealth in water resources, these resources are at risk.

The maintenance of sufficient quantities of high-quality water is necessary for human and ecosystem health. While there have been significant reductions in point-source discharges of contaminants, such as direct discharges from pipes or spills, significant challenges remain. For example, many emerging chemicals of concern, such as pharmaceutical

products, are not adequately addressed by existing sewage treatment systems. Moreover, about 1 trillion litres of primary or untreated sewage pour into our water every year. There are also many indirect sources of pollution including urban runoff, agricultural runoff, aquaculture, forestry practices, and airborne pollutants. Increased nutrient levels in surface waters, particularly from non-point sources, are contributing to the establishment of harmful algal blooms across Canada.

A changing climate will have profound impacts on the quantity, availability and quality of water resources. It will alter ecosystem productivity, habitat function, and overall biodiversity of aquatic, terrestrial, estuarine and marine ecosystems. In addition, urbanization and other land-use practices are continuing to result in wetland loss. Wetlands perform an essential role in maintaining proper ecosystem function. However, to date, 68 percent of original wetlands in southern Ontario, and 75 percent of those in southwestern Manitoba have been converted from their natural state. Adopting an ecosystem or watershed management approach that takes into account all the important functions of an ecosystem is important to maintaining healthy ecosystems and protecting human health.

Water is also an essential resource for important areas of Canada's economy such as agriculture, pulp and paper, oil and gas, electric power generation and transportation, as well as tourism and other recreational uses. Urban population growth and economic development have resulted in pressures on water infrastructure and created competing demands for scarce water resources.

Planning Context

This Program Activity is designed to help restore, conserve and enhance Canada's aquatic natural capital by ensuring that Canada's water is clean, safe and secure and that aquatic ecosystems are conserved and protected. In Budget 2007, the Government of Canada reinforced its commitment to water by investing in a series of initiatives. Resources are being allocated to support the clean-up of Lake Winnipeg, Lake Simcoe and areas of concern in the Great Lakes. Additional investments are being made to support science-based research, including the International Joint Commission's studies on water levels in the Great Lakes, and to protect our oceans and coastal areas.

Environment Canada works in collaboration with other federal departments, provinces and territories (individually as well as through the Canadian Council of Ministers of the Environment), science networks related to work on the environment, as well as the public (including non-governmental organizations, academia and municipalities). In general, collaboration with partners allows Environment Canada to share information; determine priorities for monitoring and research; provide timely integrated scientific information and advice to decision-makers; build best management practices; and promote sustainable water management in Canada for the efficient use of Canada's water resources. For example, Environment Canada is working with provinces and territories, and consulting with Aboriginal peoples and other stakeholders on proposed stringent national standards for discharges from municipal wastewater systems.

Current Status and Future Positioning

Securing clean, safe and secure water for people and ecosystems requires that governments hold a domestically and internationally shared vision. Provinces are generally the primary managers of water in Canada and are responsible for much of the environmental regulation and policy making that affects water issues. However, water bodies and watersheds frequently extend across provincial and national boundaries, thereby implicating the federal government.

Environment Canada is a leading provider of science, data and research related to water quality, quantity and sustainable use in Canada. Environment Canada also works to influence the overall direction for the management of water resources by enhancing inter-jurisdictional relations and governance structures; improving federal water management across departments; improving water quality and aquatic ecosystem health monitoring and information; enhancing the understanding of the impacts of climate change and human activities on water resources and aquatic ecosystem health; establishing actions to restore and preserve Canada's water resources; and promoting wise and efficient water management and use.

Risks and Challenges

There is a risk that decision-makers and resource managers will not have adequate or sufficient science-based advice about the impacts on and risks to water quality, quantity and sustainable use, including long-term infrastructure costs and those related to urban growth and economic development in Canada. To mitigate this risk, Environment Canada is working in collaboration with a range of partners including other federal government departments, provincial and territorial counterparts, municipal officials and academics. This concerted effort includes agreeing on strategic directions for action, collaborating in research, sharing information and expertise, promoting sustainable water use, as well as building best management practices in Canada.

Securing interdepartmental, intergovernmental and industry cooperation and support is a significant challenge. Environment Canada and interdepartmental committees are looking at ways to improve the integration of federal work related to water and to advance policy options for key priorities.

Further details on activities related to water:

Program Area: Aquatic ecosystems are conserved and protected
Activities: Implementation of key federal water commitments; water science and technology integration; water management performance promotion; water quality and aquatic ecosystem monitoring and reporting; research on hydrology and the impacts of human activities and the effects of contaminants and other substances of concern on aquatic ecosystems and water resources; research and development on the conservation and remediation of water resources; science and technology support to water activities and water education and engagement

Expected Results: – Inter-jurisdictional relations and governance structures are enhanced – Federal water management across departments is improved – Water quality and aquatic ecosystem health monitoring and reporting are improved – Understanding of the impacts of human activities on water resources and aquatic ecosystem health is enhanced – Actions are taken to restore and preserve Canada's water resources and promote wise and efficient water management and use – Education and engagement on water are improved
Indicators: – Economic, social and environmental benefits accrue to Canadians through sustainable and productive use of water resources – Canadians have access to safe drinking water and human health is protected from water quality and quantity-related threats – Aquatic ecosystems and biodiversity are conserved and protected
Partners: Provincial, territorial and municipal governments; other federal departments (approximately 20 federal departments and agencies have interests in water); Aboriginal peoples; non-governmental organizations; the International Joint Commission; industry; academia; domestic and international water-related networks
For further information: Budget 2007 Preserving Our Environment and Modernizing Our Health Care System theme: www.budget.gc.ca/2007/themes/papemhe.html www.environmentandresources.ca/default.asp?lang=En&n=2B589A09-1

Program Activity 1C – Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes

Results Context

Ecosystems provide essential goods and services for Canadians (e.g. clean water, biodiversity, flood control). Decisions made by governments, industry and individuals determine how natural capital is used and managed, which can affect the health of the ecosystem and its ability to provide these goods and services. Effectively delivering and communicating integrated science and policy expertise and working in partnership with all stakeholders—who are key to implementing an ecosystem approach — will influence the potential impacts on the ecosystem of the choices Canadians make every day.

Priority Ecosystem Initiatives have been developed in an effort to respond to the unique environmental and sustainability issues of targeted ecosystems. They are results-based multi-stakeholder initiatives that promote and implement ecosystem management to maintain Canada's natural capital. In that context, the alignment of Environment Canada's work with the lead federal departments and other key partners that are promoting an ecosystem approach is important to address issues associated with various components of our mandate and to facilitate interdepartmental and intergovernmental cooperation.

The environmental assessment process is a planning tool for development project proponents. It contributes to the integration of ecosystem management within government decision-making processes and promotes the sustainable use and management of our natural capital. The number of proposals for complex, major projects is increasing significantly. These large projects, considered collectively, could substantially impact ecosystem functions and natural capital reserves.

Engaging Canadians through education and outreach activities will help Canadians make informed choices in support of the environment.

Planning Context

This Program Activity will oversee the advancement of the implementation of an ecosystem approach to environmental management. It will facilitate comprehensive departmental action on ecosystems by aligning science, monitoring, on-the-ground action and policy expertise as well as enhancing collaborative governance and decision-making mechanisms.

The goal of this work is to effectively generate and communicate integrated knowledge of ecosystems and influence decision-making and actions to ensure that our ecosystems maintain their capacity to produce ecological goods and services.

Education and engagement will be used as tools to motivate Canadians to take appropriate action to benefit the environment. Environment Canada's Biosphere, the Department's centre of expertise in education, will continue to inform, through visits and distance education, Canadians about specific areas in which every citizen can contribute to a healthier environment. Through EcoAction, Environment Canada's community-based funding program, as well as other outreach and education initiatives, Environment Canada will encourage Canadians to take action in their own communities.

Current Status and Future Positioning

The Ecosystem Approach framework as well as the Priority Ecosystem Initiative Management Framework and the ongoing work on the Ecosystem Status and Trend Assessment Report will contribute to the design of a coherent and effective Priority Ecosystem Initiatives program across Canada for implementation from 2010 to 2017. Plans and priorities include

- advancing the implementation of an ecosystem approach for the Department and developing collaborative approaches with other federal departments;
- identification of priority ecosystems and selection of Ecosystem Initiatives using a systematic ecosystem approach;
- implementing the Priority Ecosystem Initiative Management Framework, which will encompass existing and new Priority Ecosystem Initiatives;
- improving the state of priority ecosystems across the country through the effective delivery of Priority Ecosystem Initiatives and other departmental programs;
- updating Environment Canada's strategic orientation on the "Ocean" file; and

- responding to recommendations of the Evaluation of the Georgia Basin Action Plan.

In response to the Cabinet Directive on Implementing the *Canadian Environmental Assessment Act*, Environment Canada is engaged with other federal departments in a series of initiatives designed to improve predictability and efficiency of the project environmental assessment process. For example, Environment Canada is a key player in the Improving the Performance of the Regulatory System for Major Resource Projects initiative to improve the timeliness, predictability, efficiency and effectiveness of project environmental assessments and approvals.

Environment Canada's education and engagement activities including funding for non-government groups provides the tools for Canadians to learn about and take action in support of a healthy environment.

Risks and Challenges

If an ecosystem approach is not applied to departmental initiatives, we may lose the opportunity to increase the efficiency of our programs in responding to the environmental and sustainability issues of targeted ecosystems. It may also be more difficult to further integrate work with other departments, other governments and partners.

Further details on activities related to sustainable use and management of natural capital and working landscapes:

Program Area: Environment Canada's governance and policy coordination of ecosystem approach
Activities:
Management: Development and management of agreements, grants and contributions agreements, policy development, partnership management, performance measurement and assessment, strategic communications supporting effective delivery of priority ecosystems
Community engagement and capacity development: Activities related to the development, support and coordination of community engagement and capacity development in order to support effective delivery of Priority Ecosystems Initiatives
Integration: Advancing the implementation of an ecosystem approach for the Department, implementation of a Priority Ecosystem Initiative Management Framework, coordination of Priority Ecosystems Initiatives to achieve better integration and effectiveness amongst various initiatives; governance and policy coordination of oceans ecosystems
Action: Integrated implementation of activities and program that lead to the improvement of the state (environmental quality) of priority ecosystems across the country

Expected Results:

- Level of environmental quality within priority ecosystems is improved through efficient implementation of the existing ecosystem initiatives. More specifically, the Great Lakes Water Quality Agreement is reviewed and possibly renegotiated; agreements with the Priority Intervention Zones (ZIP) committees are extended until 2010 to align with the Canada-Quebec Agreement; the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA) is delivered through the implementation of specific Remedial Action Plans, Lakewide Management Plans and Binational Toxics Strategy initiatives.
- Georgia Basin Action Plan, Atlantic Canada Ecosystems Initiative, Western Boreal Conservation Initiative and Northern Ecosystem Initiative are extended to 2010 to align with the St.Lawrence Plan and Great Lakes Basin Ecosystem Initiative.
- The Department uses an ecosystem approach to identify gaps with respect to integrated information, science, monitoring, assessment and indicators for priority ecosystems and other related Environment Canada programs
- A Priority Ecosystem Initiative Management Framework is used as a lens to identify and develop or improve and then implement Priority Ecosystem Initiatives across Canada
- Coordination between individual initiatives is strengthened
- Environment Canada's action and partnerships with other federal and provincial/territorial stakeholders in relation to coastal and oceans ecosystems is optimized to provide the most relevant and efficient contribution to achieve environmental objectives in priority ecosystems

Indicators: An improved health of priority ecosystems across Canada:

- Atlantic Coastal Action Plan (ACAP) communities enhance ecosystem integrity, promote competitiveness and protect human health
- Monitoring of the state of the St. Lawrence indicates measurable improvements in the state of conservation and protection of this ecosystem
- Completion of priority actions for delisting in four Areas of Concern (AOCs): Nipigon Bay, Jackfish Bay, Wheatley Harbour and St. Lawrence River (Cornwall).
- Make significant progress towards Remedial Action Plan (RAP) implementation, environmental recovery and restoration of beneficial uses in the remaining 11 AOCs by 2010. These are Thunder Bay, Peninsula Harbour, Spanish Harbour, Niagara River, Hamilton Harbour, Toronto, Port Hope, Bay of Quinte, St. Mary's River, St. Clair River and Detroit River
- Development and adoption of predictive modelling and monitoring tools and best practices for management of boreal forests in Canada
- Northern communities and organizations acquire the tools and knowledge to manage ecosystems on which they depend
- State of actions taken by industry, landowners and local government to prevent and reduce pollution in air and water in the Georgia Basin
- Establishment and/or maintenance of shared governance mechanisms (Ecosystem Initiatives steering/management committees, Ecosystems Initiative working-level committees)
- Engagement of appropriate citizens' groups and communities in support of Ecosystem Initiatives (e.g. through Priority Intervention Zones (ZIPs), Atlantic Coastal Action Program, Great Lakes Remedial Action Plans, Great Lakes Lakewide Management Plans, Great Lakes Binational Toxic Strategy, Northern Ecosystem Initiative projects)
- Timeliness and usefulness of information and advice received by governance structures

Indicators: An improved implementation of the Ecosystem Approach to insure the conservation and protection of the natural capital provided by Canada's ecosystems:

- Shifts in Environment Canada's initiatives and programs to reflect the Ecosystem Approach (e.g. integrated ecosystem science monitoring, cumulative effects assessments, better aligned science and policy expertise, enhanced collaborative governance)
- Sharing and use of departmental science in policy and program development by governance structures
- Innovative tools for decision-makers to provide a better understanding of ecosystem changes as well as ecological functions and services
- Enhanced, new and more focused Ecosystem Initiatives aligned to program objectives

Partners: Other federal departments, provinces and territories, municipalities, International Joint Commission (IJC), U.S. federal and state governments, community groups, First Nations and Inuit organizations, conservation authorities, environmental non-governmental organizations, industry, academia, science institutions and programs, research and science networks.

For further information:

Ecosystem Initiatives (www.ec.gc.ca/ecosyst/backgrounder.html)

Evaluation of the Georgia Basin Action Plan (www.ec.gc.ca/doc/ae-ve/ve-ae_123/tdm-toc_eng.htm)

Atlantic Coastal Action Program (atlantic-web1.ns.ec.gc.ca/community/acap/)

St. Lawrence Plan (www.planstlaurent.qc.ca)

Great Lakes Basin Ecosystem Initiative (www.on.ec.gc.ca/greatlakes/)

Western Boreal Conservation Initiative (www.pnr-rpn.ec.gc.ca/nature/ecosystems/wbci-icbo/)

Georgia Basin Action Plan (www.pyr.ec.gc.ca/georgiabasin/index_e.htm)

Northern Ecosystem Initiative (www.pnr-rpn.ec.gc.ca/nature/ecosystems/nei-ien/index.en.html)

Program Area: Environmental assessment and ecological monitoring

Activities: Consolidated environmental assessments; ecological assessment and monitoring

Expected Results:

- The environmental sustainability of projects, plans, programs and policies of federal interest is improved
- Ecological assessment and monitoring information influence decision-making

Indicators:

- Implementation of new management approaches in project environmental assessments and strategic environmental assessments
- Availability of relevant and reliable information to assess ecosystem status and change

Partners: Other federal departments; provinces and territories; Ecological Monitoring and Assessment Network (including government departments, the public, environmental non-governmental organizations, academia)

For further information:

Ecological Monitoring and Assessment Network www.eman-rese.ca/eman/

Environmental Assessment www.ec.gc.ca/ea-ee/home/home_e.asp

Program Area: Outreach and Engagement
Activities: Reaching out to Canadians with Environment Canada's science, knowledge and information in order to build awareness; to inform and educate Canadians about environmental issues, and to support actions at the community level to improve the environment.
Expected Results: – Canadians have access to high-quality information on key issues and actions they can take to behave more sustainably and influence others to do so – Community groups have achieved measurable environmental, capacity and awareness results on priority issues, and restoration of environmental damage – Collaborative initiatives support provinces and territories and educators in their efforts to accelerate the uptake of environmental learning in Canada.
Indicators: – Number of community projects achieving measurable environmental results – Number of partnerships supporting environmental education – Quality of information available to Canadians
Partners: Other federal departments, provinces and territories, schools, media, non-governmental organizations, National Pollutant Release Inventory, industry associations, academia
For further information: EcoAction: www.ecoaction.gc.ca/index-eng.cfm Biosphere: biosphere.ec.gc.ca/Home-WS3C2E8507-1_En.htm Action and Learning: www.ec.gc.ca/default.asp?lang=En&n=8B2F9F48-1

Strategic Outcome 2: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians

Description

Canadians are impacted by weather and environmental conditions such as extremes in temperature and precipitation, variable lake levels, winter storms, hurricanes, tornadoes, droughts, floods, smog, sea ice, road icing and air turbulence. These conditions can affect Canadians' health, safety, property and businesses, as well as the economy and the environment.

Almost one-third of Canada's gross domestic product is affected by variations in climate and weather. Important regional economies and entire economic sectors, such as forestry, agriculture and fisheries, are already being affected and could be even more severely so by further climate change. Canada's critical public infrastructure is aging and was designed according to building codes and standards that were developed based on outdated climate information and methods of estimating extreme events. Canada's northern communities and ecosystems are particularly vulnerable and impacts like melting permafrost and shrinking sea ice cover—for example, the record minimum Arctic ice of September 2007—are already being observed. To reduce the social, economic and environmental impacts of the changing and variable climate on Canada, action must be taken to better predict the most likely changes over the short (high-impact weather events) and long term (climate change), further our understanding of how these changes will affect us and provide warnings, other key time-sensitive environmental information and strategies to facilitate how we can best adapt to these changes.

Environment Canada works to provide meteorological, hydrological and other related environmental information, prediction and services to ensure Canadians' safety and health. This information also helps to provide community resilience, to sustain ecosystems and to maximize economic returns. Environment Canada's work in this area is organized under two Program Activities:

1. Improved knowledge and information on weather and environmental conditions influences decision-making.
    a. Information from environmental monitoring activities is sufficient to identify, analyze, study and predict weather and climate conditions, air quality, and clean water availability.
    b. Science supports weather and environmental predictions and services, and provides climate change scenarios; both enable departmental decision-making and policy development.

2. Canadians are informed of, and respond appropriately to, current and predicted environmental conditions.
    a. Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being.

b. Canadians are informed by weather and environmental services and are thus able to respond appropriately.
c. The evolving needs of Canadians are met through advances in the research, development, evaluation, implementation and delivery of weather and environmental services.
d. Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment.

Planned Financial and Human Resources by Program Activity

Program Activities ($ millions)	2008–2009		2009–2010		2010–2011	
	$	FTEs	$	FTEs	$	FTEs
Improved knowledge and information on weather and environmental conditions influences decision-making	**130.2**	**892**	127.9	902	124.2	900
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	**153.0**	**1,649**	154.0	1,689	149.4	1,677
Totals	**283.2**	**2,541**	**282.0**	**2,591**	**273.7**	**2,577**

Totals may differ within and between tables due to the rounding of figures.

Expected Results and Key Measures

Program Activity	Expected Results	Indicators
Improved knowledge and information on weather and environmental conditions influences decision-making	Information from environmental monitoring activities is sufficient to identify, analyze, study and predict weather and climate conditions, air quality, and clean water availability	Environment Canada monitoring networks reliably generate cost-effective observations which are accessible by Canadians Partners openly share their information with Environment Canada and Canadians
	Science is produced to support weather and environmental services, decision-making and policy development	Science-driven improvements to quality and utility of weather and other environmental services, as expressed by accuracy and timeliness of forecasts and the degree to which environmental science influences policy development and decision-making

Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	Canadians are better informed through improved weather and environmental predictions and services and leveraged partnership opportunities	Level of satisfaction of public and weather-sensitive industries
	Canadians benefit from the creation and use of meteorological and environmental information by Environment Canada and its partners where there is common interest	Accuracy and timeliness of services measured against performance benchmarks
	Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment	Enhanced level of awareness and understanding by economic sectors, other government departments and other levels of government of their vulnerability to atmospheric change and the subsequent reduction of Canada's adaptation deficit

Plans and Priorities

Over the next three years, Environment Canada will pursue the following plans and priorities for the Weather and Environmental Predictions and Services Strategic Outcome and related Program Activities:

1. Promote the health and safety of Canadians and improve decision-making:
    - Provide adequate warning lead time (i.e. the time between the issuing of a warning and the occurrence of a hazardous event) and accurate forecasts.
    - Provide meteorological information to emergency management organizations before, during and after emergencies, and enhance services to these organizations and to the media in times of severe weather.
    - Develop a strategy and implement a new approach for compliant delivery of services via telephone and the Internet.
    - Demonstrate operational readiness for supporting the 2010 winter Olympic and Paralympic Games through participation in the 2009 pre-games sporting events.
    - Promote effective national and international partnerships to leverage scientific expertise, improved monitoring, data access and predictions.
    - Continue to implement, in a phased manner, the new Air Quality Health Index.
    - Introduce, from advances in both scientific and environmental prediction capacity, new services to adapt to future environmental conditions and meet Canadians' evolving or emerging needs.
    - Make data available for effective decision-making.

2. Contribute to the Government of Canada agenda by maintaining existing and establishing new effective partnerships, agreements and policies:
    - Contribute to an integrated northern strategy that will promote safety and security, exercise sovereignty and respond to a changing climate.
    - Contribute to a water strategy in the context of the changing climate, for instance, through monitoring water levels and flows and providing operational forecasts for water availability.
    - Develop next-generation environmental analytical models and operational support to the Clean Air Regulatory Agenda, the Water Strategy and the Chemicals Management Plan.
    - Expand federal-provincial cooperation to atmospheric monitoring including lightning.
    - Expand access to hydrologic and atmospheric data, and scientific advancements through key international alliances including the United States, World Meteorological Organization (WMO), International Science Union and the European Organisation for the Exploitation of Meteorological Satellites.

3. Foster community and economic resilience through adaptive solutions to climate and environmental change at the local, regional and national levels:
    - Improve climate change projections, bringing their quality and resolution closer to the needs of decision-makers, and increase Canadians' access to the results of these projections and related scientific outcomes.
    - Develop regional-scale scenarios for climate change as well as tools and services to better understand how climate change will affect Canadians, their communities and businesses, and to help them adapt to it and reduce the risks posed by natural hazards.

4. Ensure the ongoing relevance to Canadians of weather and environmental services:
    - Position weather and environmental services for the future through a change agenda that will ensure the organization is aligned, client-driven, sustainable and remains relevant to Canadians.
    - Improve accountability through the implementation of an ISO-certified quality management system.
    - Develop and implement an integrated monitoring and environmental prediction capacity.
    - Ensure that monitoring systems and networks are life-cycle managed.
    - Implement a data management framework to improve information management.
    - Continue the enhancement of supercomputing capacity and efficient operational tools.
    - Continue building towards a diversified, healthy and respectful workplace where excellence is cultivated and recognized.
    - Ensure that planning and human resources processes are strategically aligned.

Program Activity 2A – Improved knowledge and information on weather and environmental conditions influences decision-making

Results Context

The availability of timely observational data and information is critical to generating knowledge and information for environmental prediction, air quality forecasts, and to inform scientific analyses on water quality and supply, climate change and ecosystem sustainability. In particular, monitoring (the systematic measurement of various parameters of the environment, such as winds, temperatures or water levels) makes it possible to detect and predict, in real time, hazardous environmental conditions; these activities are critical for reducing risks through adaptation and contributing to the health and well-being of Canadians. The resulting data and information are used in the development of policy and regulations (e.g. climate change policy and building codes) and contribute to advances in environmental literacy. Observational information is also needed to quantify the impact of policy decisions.

Monitoring activities are directed at ensuring the acquisition, transmission, archiving, and accessibility of observations pertaining to weather, climate (past weather), water levels and flows, and other environmental matters. These observations are essential to making consistent, reliable data and timely information available to users 24 hours a day, 7 days a week. Activities fundamental to achieving these results include the following: monitoring relevant parameters; establishing, maintaining and inspecting the monitoring infrastructure; providing horizontal leadership in environmental monitoring; ensuring data stewardship; and reporting on those basic parameters.

Prediction research activities provide the foundation for improving the essential services provided under Program Activity 2B (Canadians are informed of, and respond appropriately to, current and predicted environmental conditions) as well as policy advice on government priorities such as weather, our changing climate and stratospheric ozone, which affect health, safety, economic competitiveness and environmental quality. Research activities range from computer modelling of weather, climate, sea ice and chemicals in the atmosphere to assessing water availability now and in the future (water cycle prediction). The analysis of climate variability and change along with atmospheric-science-based assessments also assist research scientists to develop a better understanding of the global climate picture, thereby providing a strong basis for advice to Canadians.

Weather and environmental science delivers credible, relevant, integrated and usable predictions, knowledge, climate change scenarios, information and advice as well as decision-making tools and information on existing and emerging issues. This science also helps industry, citizens, communities and governments understand their vulnerabilities to conditions or threats related to health, safety, security, the economy or the environment. This science also provides them with knowledge, predictions, advice, decision-making tools and information that enable them to prevent the preventable, optimize opportunities and risk-manage the rest. Environment Canada recognizes the benefit of a strong environmental prediction strategy as identified in its Science Plan. Environment Canada

will continue to demonstrate leadership in developing this capacity to meet the needs of the evolving environmental agenda.

Planning Context

Contributing to the global effort to monitor and understand our changing environment, this Program Activity focuses on measuring and recording existing conditions, on detecting hazardous conditions, and on understanding what is changing in the atmosphere (weather, climate, air quality and ultraviolet radiation), hydrosphere (water) and cryosphere (ice and snow), and why. To achieve this, it is necessary to conduct, throughout Canada, consistent, ongoing measurements of basic parameters, while advancing the science to understand how the environment behaves. Anticipated key results under this program include improved environmental predictions, information and tools on weather and environmental conditions (e.g. a better understanding of the causes of severe weather, the mechanisms that transport chemicals through the atmosphere, the impacts of human activity on the atmosphere, and integrated models based on atmospheric, hydrologic and cryospheric science). These benefits will support the delivery of environmental services as well as the development of policy.

Current Status and Future Positioning

The continuous operation of observational networks, including an increasing role for remote and space-based monitoring systems (e.g. Earth Observation satellites), is critical to enable Environment Canada to provide essential environmental predictions. Environment Canada's observational information and data are relied upon to support policies and programs in the following areas: forecasting weather, floods and droughts; conducting informed environmental assessments; assessing the impacts of climate change and the effectiveness of adaptation responses; designing buildings and infrastructure; managing and protecting natural resources, including water; and forecasting and managing air quality.

To ensure that sufficient data is available in a cost-effective way, the monitoring program continually evolves through strategic investments in new monitoring technologies, a rebalancing of the mix of in-situ, remote, airborne and satellite-based monitoring systems, and the fostering of partnerships with other countries, other international bodies such as WMO and Global Earth Observation System of Systems, other government departments, other levels of government and the private sector. Implementing modern data management techniques to acquire, transmit, archive and control the quality of information is essential to ensuring that data is available to researchers and decision-makers, and will contribute to leveraging the maximum benefit from the resources devoted to monitoring. Environment Canada is well positioned to provide a leadership role in both of these activities. This will allow the Department to better respond to growing demands for more accurate, comprehensive and timely environmental information and predictions.

From a scientific perspective, current priorities focus on improving scientific models (e.g. achieving higher resolution and accuracy), developing more multidisciplinary models (e.g. coupling atmospheric, ocean, and sea ice monitoring) and probabilistic forecasts that

support Environment Canada's essential services as well as policy and decision-making on key government issues such as climate, health, safety, energy and economic competitiveness.

Risks and Challenges

Other government departments, provinces and industry look to the Department to provide scientific leadership and coordination on meteorology and to provide its share of the monitoring infrastructure. In demonstrating this leadership, adequate funding is required to ensure that data management and archive infrastructures are in place and that the integrity of the networks operated by the Department reliably supply quality information. Rapid changes in technology require ongoing investment to ensure quality and availability of data in a cost-effective way.

Rapid scientific and technological advancements and their increasing complexity pose challenges and opportunities for environmental prediction activities with respect to acquiring data, assimilating the data into computer models, and producing and disseminating forecasts. In particular, the increasing costs of modern monitoring technology represent a significant challenge. Investment is required to identify cost-effective solutions for monitoring equipment in order to meet data availability and quality expectations, and adequate funding is required to ensure that the monitoring infrastructure is in place to meet data requirements. For example, as we move towards the next generation of climate change scenarios, we will need to better understand the biological and chemical processes in the atmosphere and land systems. In order to do this, we will need to have access to a much larger variety of environmental information from around the globe, such as soil moisture, sea surface temperatures, sea ice coverage, etc. These data sets will also be needed as we improve the weather models supporting Environment Canada's essential services, move towards unified models—regional weather and climate—or develop multidisciplinary models (atmosphere, oceans, sea ice) that could be used for a variety of applications, such as assisting weather and climate-sensitive sectors of the economy.

New generations of satellites are being launched that will provide the increasingly voluminous and useful data sets that Environment Canada needs for environmental predictions. Access to these volumes of data will require the modernized ground receiving stations, additional telecommunications bandwidth, supercomputing power mass storage and ground-based monitoring adapted for ground truthing of the satellite observations. A strategic plan is currently being developed to modernize Canada's weather and climate monitoring networks. Risks related to a sudden loss of data (e.g. caused by a system failure, or termination of service by a supplier) are mitigated by having access to multiple sources of data. Effective business continuity planning mitigates the risks related to the capacity to deliver weather and environmental forecasts and services.

Implementing the proposed monitoring approach requires people with very specialized scientific and technological backgrounds. This is particularly important to delivering the

scientific information required to address key environmental issues over both the short term and long term, such as climate change in the North.

Environment Canada will continue its recruitment and career development plan for technical staff in both atmospheric and hydrometric monitoring (three to five years of training are required). An up-to-date formal succession plan and aggressive career development plan to address the very high retirement rate anticipated over the next five years for professional and technical staff will be developed and implemented.

Failures of automated data collection systems could result in a lack of reliable observational data to warn Canadians of pending meteorological and environmental hazards. Effective maintenance and inspection programs with contingency plans for all networks minimize such risks. In particular, Quality Management System certification (ISO 9001) has been achieved and is being pursued for data collection networks, and will continue to enhance the integrity of operations and contribute to improvements.

Further details on weather and environmental knowledge and information activities:

Program Area: Information from environmental monitoring activities is accessible to identify, analyze, study and predict weather and climate conditions, air quality, and clean water availability
Activities: – Operate systems and networks to acquire, transmit and archive weather, climate, hydrometric and other environmental observations essential to providing users with consistent, reliable data and information in a timely fashion – Foster and develop partnerships to leverage the resources devoted to monitoring, thereby maximizing the benefit to Canadians
Expected Results: Environment Canada has the environmental monitoring capability that will allow it to identify, analyze and predict weather, air, water and climate conditions and to consolidate its systematic meteorological, climatological and hydrometric monitoring activities, creating the foundation for national leadership in promoting key departmental objectives: – Assisting other federal departments, other levels of government and external organizations to meet their environmental data needs – Adapting monitoring networks and technologies to meet changing client needs – Developing partner relationships to efficiently serve the environmental data requirements of Canadians – Leading the integration of atmospheric and hydrometric monitoring efforts in Canada – Leading Environment Canada efforts on future key monitoring initiatives (e.g. Global Earth Observation and space-based monitoring)

Indicators:

- Availability of hydrometeorological and environmental data that enables key departmental activities on weather forecasting and prediction, climate change or environmental sustainability to proceed on time
- Easily accessible data, including metadata, in the archive of all available observational information
- Expanding group of partners working together to provide observations for all Canadians to use
- Development of a mechanism to measure data availability/quality in order to set quality objectives
- As an interim measure, 90 percent availability of data of defined quality (accuracy, time of arrival, etc.) from networks operated by Environment Canada
- Less than 5 percent data loss from failure of Environment-Canada-owned equipment
- Reduction in or maintenance of equipment failure rate

Partners: World Meteorological Organization; Global Earth Observation System of Systems (GEOSS); other government departments (National Defence, Parks Canada, Canadian Coast Guard, Agriculture and Agri-Food Canada, Canadian Space Agency); other levels of government (provinces/territories and municipalities); NAV CANADA; U.S. National Oceanic and Atmospheric Administration; U.S. Geological Service; European Satellite Agency; Canadian Cooperative Programs

Program Area: Science supports weather and environmental predictions and services, provision of climate change scenarios, departmental decision-making and policy development

Activities: Delivering credible, relevant, integrated and usable environmental predictions, environmental knowledge, climate change scenarios, advice, decision-making tools and information

Expected Results:

- Science is produced to support weather and environmental services, decision-making and policy development
- The body of knowledge about climate analyses, climate trend processes and climate modelling, as well as atmospheric studies, is increased
- Environmental policies and services are developed based on sound atmospheric science

Indicators:

- Degree to which science contributes to improving the quality and utility of weather and environmental services
- Degree to which climate change scenarios and the models that predict changes in atmospheric ozone are improved
- Degree to which science contributes to improving Canadians' level of awareness and understanding of key environmental issues
- Degree to which science supports or influences policy development
- Recognition of the relevance and excellence of the science

Partners: Other government departments (National Defence, Fisheries and Oceans Canada, Transport Canada, Natural Resources Canada, Health Canada, Agriculture and Agri-Food Canada, Canadian Forest Service, Canadian Coast Guard, Canadian Space Agency, Natural Sciences and Engineering Research Council, Parks Canada); other levels of government; U.S. Federal Aviation Administration; international research agencies (U.S. National Centers for Environmental Prediction, U.S. National Aeronautics and Space Administration, European Centre for Medium-Range Weather Forecasts, International Ice Patrol, International Ice Charting Working Group, Intergovernmental Panel on Climate Change, Global Climate Modelling Centres)

Program Activity 2B – Canadians are informed of, and respond appropriately to, current and predicted environmental conditions

Results Context

Timely warnings and forecasts of changing weather, climate and environmental conditions that threaten the life, health or well-being of Canadians form the raison d'être of this Program Activity. Globally, about 85 percent of life-threatening hazards are hydrological or meteorological in nature. Furthermore, public opinion research[7] indicates that nearly nine out of ten Canadians (89 percent) make a point of looking at or listening to weather forecasts at least once a day. They do so to mitigate the impacts of potentially dangerous situations through effective adaptation decisions in everyday life. Weather and environmental information is used in making policy and business decisions, particularly in weather- and climate-sensitive sectors such as energy, transportation and agriculture. Moreover, Canadians, their governments and private industries are increasingly seeking other types of environmental information, for example, on air quality or ultraviolet radiation.

Environment Canada produces weather and environmental forecasts, warnings and information for the health and safety of Canadians, 24 hours a day, every day. It also produces air quality forecasts, and information products for emergency response, such as models to predict how hazardous substances like volcanic ash, pollutants or radioactive material will spread into the atmosphere. The Department is also involved in outreach activities because information alone, though very useful, is generally not sufficient to empower Canadians to take action to protect their health and safety and to mitigate or adapt to the negative effects on the economy and ecosystems.

The 2007 report of the Intergovernmental Panel on Climate Change (IPCC) has concluded that it is very likely (over 90 percent certainty) that increases in greenhouse gas emissions due to human activities caused most of the increase in temperatures, averaged over the whole globe, observed over the last 50 years. The IPCC has further concluded that it is more than 66 percent likely that, in the last three decades, this warming has had a discernable influence on many physical and biological systems. Scientific studies have documented these changes using information on past and present climates, including first-hand experiences in Canada's northern Aboriginal communities. The economic cost of these impacts, in Canada and elsewhere, is becoming evident through, for example, insured and uninsured losses. These early impacts illustrate the need for all levels of government to act, within their areas of responsibility, to create more resilient social, economic and environmental systems. To that end, impacts and adaptation programs to support the rapidly growing need for scientific information and advice regarding adaptation are needed. This will allow decision-makers to understand

[7] *National WES (Weather and Environmental Services) Products and Services Survey 2007*, a phone survey of 4141 Canadians conducted in March and April 2007.

and better manage the risks and exploit the opportunities posed by climate change.

Planning Context

This Program Activity responds to Canadians' needs by producing and making available knowledge and information on past, present and future physical and chemical conditions of the atmosphere (air), hydrosphere (water) and cryosphere (ice and snow). Building on Environment Canada's work to reduce the impact of weather and related hazards, this Program Activity also focuses on understanding and minimizing the negative effects of climate change, optimizing the opportunities presented by climate change for Canadians, developing adaptive strategies and helping partners implement solutions. Under this Program Activity, a wide variety of products and services result from the integration of environmental data (weather, ice cover, water levels, pollutant releases and transport, etc.), and scientific knowledge into information that is meaningful to clients, be they policy- or decision-makers, business people or individuals. These products and services aim to empower Canadians to safeguard themselves and their property against environmental hazards like dangerous weather or poor air quality and to make better-informed decisions of a social, economic and/or environmental nature, for the mutual benefit of the economy and the environment. Partnerships, domestic and international, are critical to the success of these endeavours.

Current Status and Future Positioning

The production of Environment Canada's meteorological forecast services has been extensively restructured over the past several years with the aim to better respond to the ever-increasing demands for improved weather and related environmental information and services, and to deliver the latter in a manner that is sustainable in the long term.

Having essentially completed a five-year transition project, Environment Canada must report to Treasury Board on the performance and purpose of that plan and prepare for the next steps to meet the goals of ongoing sustainability and continual improvement of Environment Canada weather and environmental services.

Weather and environmental services to Canadians will continue to improve, including service in the Arctic. Emphasis will continue to be applied to improving lead times for severe weather events and providing meteorological information to emergency measures organizations and the media before, during and after such events. As well, Environment Canada will apply its expertise to the broader area of environmental prediction by, for example, a gradual implementation of a national Air Quality Health Index in partnership with the provinces and Health Canada.

To develop the adaptation solutions needed to manage the risks and optimize the opportunities associated with a changing climate, Canada must take action in three key areas. First, it must improve its own climate change projections—improving the quality and the resolution of the model outputs. Second, we need to ensure that Canadians have access to regional-scale scenarios based on the world's latest climate change projections to help decision-makers understand the vulnerabilities, impacts and opportunities. Third, we need to strengthen Canada's capacity to support adaptation solutions at the

community, regional and national levels by developing and disseminating improved information on changing and future climate extremes for community disaster management planning decisions, more resilient infrastructure, and for risk-managing the vulnerabilities and exploiting the opportunities.

Environment Canada cannot achieve its results without the many win-win partnerships that help optimize the use of its infrastructure and successfully deliver its services. An excellent example of such a partnership is the Global Earth Observation System of Systems (GEOSS) initiative, the goal of which is to encourage coordinated, enhanced and sustained monitoring and improved environmental information products, both internationally and domestically. For instance, Environment Canada and Canada have a mission-critical reliance on international satellite and observing systems, and engagement in this initiative will permit continued leveraging of international investment in monitoring and science activities, thus leading to higher quality environmental information and prediction services at home.

The Department participates in other partnerships to deliver its programs in a cost-effective manner. For example, Environment Canada works actively with the Canadian Space Agency and other government users to develop and implement policies for acquiring and sharing data from RADARSAT-2 and other satellites. RADARSAT-1 and RADARSAT-2 are Canadian satellites that are used extensively by Environment Canada for ice monitoring and oil spill detection, resulting in safer navigation, improved understanding of changing ice conditions in an era of climate change, and enhanced marine pollution enforcement.

Modern dissemination systems will continue to improve. The Environment Canada weather website, "weatheroffice.gc.ca", is already the Canadian government's most popular website, and continues to grow at a phenomenal rate with 2.6 billion pages of information viewed in 2007. Public feedback and demand will continue to drive the evolution of this service.

In response to the relentless public demand for usable meteorological data compatible with today's technology, Internet access to data and information will be improved through applications such as Really Simple Syndication (RSS) feeds, wireless and access to database. This includes improving access to, and the reach of meteorological warnings and alerts, and integrating these into a multi-hazard, multi-jurisdictional national public alerting system. The national Weatheradio network is being positioned as an integral part of such a system, now capable of distributing tsunami warnings on both coasts. To these ends, improvements to data management practices are critical, essential and ongoing. On the other hand, traditional means such as the telephone still constitute important methods of accessing weather information. As a result, a unifying strategy will be developed to link the evolution of all the service delivery channels driven by external technological changes.

Environment Canada will continue to strengthen its links with the media, who represent an effective conduit for getting forecasts and warnings to the public, particularly during

emergencies—a key aspect of the Department's mandate. A special National Service Office is dedicated to maintaining and improving services for the media and operating a website dedicated to media use. Outreach and warning preparedness officers liaise with media outlets to improve the quality of the services provided and to increase the priority they give to weather warnings, thus extending the reach of this essential service while obtaining feedback from the media sector. Likewise, work with partners like public safety agencies and emergency measures organizations is crucial to assist them in planning how to mitigate and respond to emergencies, and to fulfill the Department's mandate of informing and protecting Canadians.

Risks and Challenges

The Department relies on collaboration from various stakeholders to obtain data essential to produce its services (for instance, NAV CANADA, other federal, provincial and territorial agencies, and the international community through the World Meteorological Organization) or to deliver them (for example, the media or other departments). This strong reliance on others could hamper service delivery if a partner were to withdraw from an agreement or experience a major failure. This risk is mitigated by multiple partnership arrangements, to increase the sources of data and points of delivery.

Forecasting is increasingly done using numerical environmental-prediction models that can only be run on the fastest computers, making a major failure of the Department's supercomputer a significant risk. This is mitigated by ensuring a robust and reliable supercomputing facility with protection systems such as uninterruptible power supplies, and by securing access to foreign models (e.g. United States, Europe).

Reliance on automated information technology (IT) systems increases the potential impact of system failure. In order to mitigate these risks, Environment Canada

- designs, tests and implements highly resilient and robust systems, through the use of redundant components where practical;
- develops and maintains service level agreements to ensure appropriate levels of service, in particular for services and systems required on a 24/7 basis; and
- develops, tests and maintains continuity plans to mitigate the impact in the event of failures.

Security threats can also present a real risk to the 24/7 operations of the Department. This risk is mitigated through the implementation of Government of Canada policies, industry standards and best practices as well as vigilant monitoring of the Department's IT infrastructure.

Adaptation solutions currently do not exist in many areas related to climate change and can only be developed using a solid understanding of impacts and adaptation coupled with strong partnerships that include decision-makers and multi-disciplinary networks. Environment Canada is developing a strong adaptation science capacity and is supporting the science-based solutions needed by all levels of government, economic sectors and society. Such a capacity would initially reduce the gaps in adaptation via five key areas: technology (e.g. renewable energy production); human health (e.g. heat alert and air

quality warning system); safety and disaster preparedness (e.g. the integrity of Canada's critical infrastructure); economic competitiveness (e.g. drought monitoring and prediction for agriculture, municipal planning); and resilience in natural ecosystems (e.g. coastal zone management) and biodiversity.

Finally, additional risks stem from internal sources. Technological obsolescence, depreciated scientific capital assets, attrition of scientific and technical expertise and competing pressures for limited resources (human, financial and managerial) are putting program delivery at risk. The Department is reducing this risk through integrated resource planning (people and assets) and through extensive reviews of its activities to identify the gaps and prioritize the work.

Further details on activities related to informing Canadians:

Program Area: Environmental forecasts and warnings are produced to enable the public to take action to protect their safety, security and well-being
Activities: Identifying, predicting and informing all Canadians of changes in the atmospheric environment and of potential high-impact meteorological situations or events that have consequences on their safety and well-being
Expected Results: – Weather and environmental forecasts and warnings are improved through scientific knowledge transfer to operations, the implementation of improved tools, more training and professional development for forecasters, and the automation of routine production – Weather and environmental information is produced in a timely manner. Canadian citizens and weather-sensitive sectors (public and private) properly understand this information and know how to use it or to react to it
Indicators: – Numerical weather prediction models developed by Environment Canada that continue to be of similar quality to those of other G8 countries – Extension in predictability of large-scale weather patterns, by 12 hours every 5 years – Improvement in emergency measures organizations' and the media's understanding of high-impact weather warnings
Partners: Other government departments (Public Safety Canada, Health Canada, National Defence, Fisheries and Oceans Canada, Canadian Food Inspection Agency, Privy Council Office); provinces and municipalities; media; the general public; private sector; international organizations (World Meteorological Organization (WMO), International Civil Aviation Organization, Comprehensive Nuclear-Test-Ban Treaty Organization, Global Earth Observation); the U.S. and other G8 countries

Program Area: Canadians are informed by weather and environmental services and are thus able to respond appropriately
Activities: Providing better access to and delivery of information; expanding the application of environmental prediction and information through new or specialized services; providing partners with environmental information that allows them to improve the safety of their operations and maximize their efficiency

Expected Results:

- Canadians, key clients and partners receive better advice on and access to pertinent weather and environmental information in support of decision-making
- A reliable, robust multi-hazard public warning system is in place that allows Canadians to take measures to reduce risk to life and property
- Environment Canada supports the weather-sensitive operations of its major government and government-mandated partners by providing them with quality environmental information that allows them to improve the safety of their operations and maximize their efficiency, for the overall betterment of the Canadian economy, the environment and Environment Canada's meteorological programs

Indicators:

- Level of satisfaction of the public, weather-sensitive industries, and client organizations with the information and services they receive (for instance with the accuracy, timeliness, usefulness and ease of understanding of weather forecasts and other information)
- Measurement of improvements to key services for weather-sensitive economic sectors
- Level of access to and demand for Environment Canada's products and services
- Accuracy and timeliness of services, measured against performance benchmarks

Partners: Other government departments (Transport Canada, National Defence, Canadian Coast Guard, Fisheries and Oceans Canada, Canadian Space Agency, Canada Centre for Remote Sensing, Natural Resources Canada, Health Canada, Agriculture and Agri-Food Canada, Parks Canada); other levels of government; media; aviation industry; U.S. Department of Defense; Vancouver Olympic Committee; Canadian and international meteorological community

Program Area: The evolving needs of Canadians are met through advances in the research, development, evaluation, implementation and delivery of weather and environmental services

Activities: Managing performance; leveraging partnerships; and expanding the application of environmental prediction and information, mainly by influencing Environment Canada and other federal departments, as well as the international meteorological community

Expected Results:

- Environment Canada's national and international credibility, reputation and visibility as an authoritative public service provider are enhanced
- Environmental issues and the needs of Canadians are addressed strategically to create programs and services that are well aligned with the present and future needs of Canadians and their governments
- Canada draws maximum benefit from international alliances related to weather and environmental services
- Canada benefits effectively from resources expended on the meteorological and environmental services programs through a strong policy function that ensures effective priority setting and stronger, more efficient departmental management

Indicators:

- Level of access to domestic and international science and monitoring data through partnerships with other government departments, provinces, the Global Earth Observation System of Systems (GEOSS), the World Meteorological Organization (WMO), etc.
- Timely identification of emerging issues in weather and environmental services and progress in the development of effective responses
- Weather and environmental services (Strategic Outcome 2 activities) certified under the ISO 9001:2000 quality management standard
- Extent to which the performance of Canada's weather service evolves through effective joint international initiatives

Partners: Other federal departments (Public Safety Canada, Natural Resources Canada); funding programs (e.g. SAR-New Initiatives Fund); World Meteorological Organization; foreign meteorological organizations, Group on Earth Observations, meteorological community (Canadian and international).

Program Area: Adaptive strategies to address the impacts of climate change are developed and implemented for the benefit of Canadians and the environment

Activities: Research and development functions, undertaken in collaboration with academia and international agencies, on the effects of atmospheric change on various segments of Canadian society, and on how to mitigate, or adapt to, these effects. These functions support sound policy development and service improvements.

Expected Results:

- There is an awareness of the impacts of climate change on economic development and planning processes
- Scenarios and options are developed to guide decision-making on adaptation in areas vulnerable to a changing climate
- Strategies for adapting to the changing climate, particularly in the North and in municipalities, as well as strategies for water management, are in place

Indicators:

- Level of access to atmospheric hazard information and scenarios based on the world's latest climate change projections
- Degree to which economic sectors, other government departments and other levels of government are aware of and understand the issues and adaptation strategies
- Degree to which the vulnerability of Canada's essential infrastructure, human health, ecosystems and economic competitiveness to climate change is reduced
- Recognition of the relevance and excellence of the science

Partners: Other government departments, provinces, territories, municipalities, universities and the private sector, National Round Table on the Environment and the Economy, Engineering Canada, Canadian Commission on Building Codes and Standards, Transportation Association of Canada, World Meteorological Organization, Intergovernmental Panel on Climate Change, Convention on Biological Diversity, UNESCO, Inter-American Institute, International Society of Biometeorology

Strategic Outcome 3: Canadians and their environment are protected from the effects of pollution and waste

Description

Environment Canada protects the health of Canadians and the environment from the effects of pollution and waste by developing and implementing innovative strategies, programs, and partnerships. Our work in this area has been organized into three program activities:

1. Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced.

2. Canadians adopt sustainable consumption and production approaches.

3. Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced.

Planned Financial and Human Resources by Program Activity

Program Activities ($ millions)	2008–2009		2009–2010		2010–2011	
	$	FTEs	$	FTEs	$	FTEs
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	**198.0**	**1,400**	194.2	1,421	190.6	1,400
Canadians adopt sustainable consumption and production approaches	**49.5**	**300**	50.6	322	65.2	337
Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced	**152.0**	**622**	156.9	637	153.5	641
Totals	**399.5**	**2,322**	**401.6**	**2,380**	**409.2**	**2,378**

Totals may differ within and between tables due to the rounding of figures.

Expected Results and Key Measures

Program Activity	Expected Results	Key Indicators
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	Risks to Canadians, their health and their environment posed by toxic and other harmful substances are assessed	Number of new and existing commercial chemicals assessed Information that leads to risk mitigation is generated
	Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are managed	Number of risk management strategies and instruments developed (e.g. regulations and performance agreements) for assessed commercial chemicals
	Risks to Canadians and impacts on the environment posed by toxic and other harmful substances are mitigated	Number of emergency risk assessments of priority substances produced in the context of the Chemicals Management Plan Decision-makers' use of provided scientific and technical support during environmental emergencies Number of monitored disposal-at-sea sites that have little or no impact on the marine environment

Canadians adopt sustainable consumption and production approaches	Canadians and decision-makers are informed about the risks posed by environmental pollution and greenhouse gases and are aware of the trends and future actions to take	Establishment of an integrated and harmonized industry reporting system for regulatory and related information Reduced administrative burden on industry for reporting data to support the implementation of the Clean Air Regulatory Agenda (CARA) and Chemicals Management Plan (CMP) regulations, program and policy development Data on criteria air contaminants (CACs) and greenhouse gases (GHGs) provided by the National Pollutant Release Inventory (NPRI) and other air emission inventories, the National Inventory Report (NIR), and the Greenhouse Gas Emissions Reporting Program (GHGERP) give decision-makers access to information on sources of environmental pollutants to help track effectiveness of pollutant management activities and identify priorities for future action Annual reporting of environmental pollutants and greenhouse gases through the NPRI, NIR, GHGERP, Canadian Environmental Sustainability Indicators (CESI) and other air emission inventories provide Canadians with information on environmental pollutants and greenhouse gas emissions levels

	Strategic approaches effectively promote sustainable production and consumption	Production of the final consolidated Government of Canada response to the CEPA 1999 Parliamentary Review. Drafting of a renewed CEPA for consideration by Parliament Maintenance of CEPA Environmental Registry with up-to-date information and continual improvement of website for user friendliness Implementation of a quality management system (QMS) to ensure decision-making under key environmental protection statutes such as CEPA 1999 is consistent, transparent and predictable Undertaking and coordination of technology research and development to ensure that existing, emerging and innovative technologies will deliver on the Department's priorities Undertaking of compliance and promotion activities as required to support new regulations
Risks to Canadians, their health and their environment from air pollutants and greenhouse gas emissions are reduced	Strategic approaches to manage air pollutants and greenhouse gas emissions effectively reduce risks	Implementation of a framework to guide the development of industrial-sector regulations, reporting and other complementary measures Science on approaches to manage air pollutants and greenhouse gases informs and supports decision-making Undertaking of international collaboration on air pollutants and greenhouse gas emissions, consistent with Canadian interests
	Risks from air pollutants and greenhouse gas emissions from industrial sectors are managed	Development of regulations and other measures to reduce air pollutants and greenhouse gas emissions from industrial sectors

	Risks from air emissions and greenhouse gas emissions from the transportation sector are managed	Development of regulations to reduce air pollution from vehicles and engines.

Plans and Priorities

Over the next three years, Environment Canada, in collaboration with Health Canada where required, plans to pursue the following plans and priorities for the Strategic Outcome "Canadians and their environment are protected from the effects of pollution and waste" and its related Program Activities:

1. Continue delivering on the Government's Clean Air Regulatory Agenda, and implement the *Turning the Corner* action plan and the Regulatory Framework for Air Emissions announced in April 2007, both aimed at reducing greenhouse gases (GHGs) and air pollution.
    - Implement measures to reduce industrial air emissions so that air pollution from industry is cut by as much as 50 percent by 2015; establish flexible compliance mechanisms to facilitate the meeting of regulatory obligation by industry; and institute rigorous monitoring and reporting practices to ensure compliance assessment and transparency.
    - Undertake actions toward reducing air emissions from the transportation sector; regulate the reduction of air pollutant emissions from on-road and off-road vehicles and engines.
    - Regulate emission reductions of volatile organic compounds (VOC) from the manufacture and use of consumer and commercial products.

2. Continue implementing the Government's Chemicals Management Plan to improve the degree of protection against hazardous chemicals, including
    - accelerating the screening and assessment of approximately 200 substances identified as high priorities under the categorization exercise, as well as implementing risk management approaches and developing risk management instruments to accelerate the screening and assessment of substances as appropriate;
    - implementing restrictions on the reintroduction into the marketplace of 150 substances of high concern not presently in commerce in Canada;
    - assessing the approximately 1,250 substances that met categorization criteria but have potentially low exposures;
    - starting to assess the approximately 2,500 "second tier" substances of medium concern as well as developing a framework for setting future priorities;
    - developing a work plan for dealing with the petroleum-stream substances of high concern;

- increasing consultation with industry and civil society to better inform decision-making and information sharing;
- codifying sound chemical management practices that will protect Canadians and the environment and ensuring that these are communicated and available to Canadians; and
- developing a quality management system to ensure that decision-making under Environment Canada's statutory authorities is as consistent, transparent and predictable as possible.

3. Strengthen Environment Canada's capacity to enforce environmental protection legislation under its jurisdiction, including
   - increasing the number of enforcement officers by 50 percent by the end of fiscal year 2008–2009; and
   - renewing Environment Canada's Enforcement Strategy and developing a national inspection plan.

4. Work with the private sector to promote environmental sustainability, including
   - engaging key players in the finance sector and other relevant stakeholders in identifying the business and financial benefits associated with strong environmental and sustainability performance and in understanding how they can integrate sustainability into their decision-making and operations; and
   - providing sustainability tools and best practices to businesses in Canada and the corporate sector to help promote the competitive and innovation benefits of enhanced environmental performance.

5. Continue efforts to coordinate and improve the quality of emissions reporting, including
   - working with the provinces and territories towards a single, harmonized system for mandatory reporting of all air pollutants and GHG emissions; and
   - assessing and improving the quality of information reported to and contained in the NPRI and the emissions inventories for air pollutants and GHGs.

Program Activity 3A – Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced

Results Context

Toxic and other harmful substances pose considerable threats to the health and well-being of Canadians and have significant negative impacts on air, water and land. Under this Program Activity, environmental and human health threats posed by toxic substances and other substances of concern are

1. Assessed, in terms of their release rate and effects;
2. Managed, through the creation of regulations and their enforcement, as well as other measures; and
3. Mitigated, reduced or eliminated through appropriate risk management measures.

These substances may exert a direct or indirect harmful effect on animals or plants, or due to the volume, nature and manner of release, may pose an immediate or longer-term risk to the environment and human health.

Planning Context

In order to protect the health of Canadians and the environment from the risks posed by toxic and other harmful substances of concern, those risks must be assessed, effectively managed and mitigated throughout the full life cycle of the substance, including the disposal or recycling of products containing them. This risk reduction strategy should also be coupled with appropriate environmental enforcement capacity.

1. Risk assessment – Assessing the risks posed by the approximately 4,300 substances that were identified under the CEPA 1999-mandated review of the 23,000 substances that were in commercial use in the mid 1980s; avoiding the creation of other harmful substances by assessing and managing new chemicals and products of biotechnology before they enter our economy and environment; developing scientific tools and technologies important for identifying, measuring, assessing and managing risk.
2. Risk management – Developing risk management strategies, such as regulations and pollution prevention plans, to reduce the release of harmful substances for the various sectors: the public sector (wastewater, storage tank systems, government operations and activities on federal lands and Aboriginal lands); the chemicals sector; the waste sector; the natural resources sectors (forestry, agriculture, aquaculture, mining, minerals and metals); and the energy and transportation sectors.
3. Risk mitigation – Developing and implementing measures to prevent or reduce the adverse effects on the environment associated with the accidental or uncontrolled release of toxic or other hazardous substances; supporting environmental emergency lead agencies and first responders with specialized scientific and technical information, containment and clean-up measures, and environmental damage assessment and restoration; developing strategies to reduce

impacts to our coasts and oceans from disposal at sea through regulatory controls and coordinated risk-based management; and advising on the remediation of federal contaminated sites.

4. Enforcement – Delivering fair, predictable and consistent enforcement of environmental regulations and statutes to effectively protect the environment and the health of Canadians from the risks caused by toxic and other harmful substances of concern.

Current Status and Future Positioning

The Chemicals Management Plan, announced in December 2006, will improve the degree of protection against hazardous chemicals, protecting the health of Canadians, as well as the environment. It includes a number of new, proactive measures to ensure that chemical substances are managed in an accelerated manner.

Canada is one of a few countries to have systematically examined all of its legacy chemicals and to have set priorities, methods and timelines for dealing with them. The information collected through the categorization exercise is considered groundbreaking for Canadian regulators. This initial categorization resulted in the identification of approximately 4,300 substances, from the 23,000 existing substances, which will require assessments by Environment Canada and Health Canada. In order to take accelerated action on the 200 highest priority chemical substances, industry and stakeholders will be asked to submit information on the properties and uses of these 200 substances. This information will be used to inform decisions regarding the best approach to take in order to protect Canadians and their environment from risks these substances might pose.

One of the main components of the Chemicals Management Plan is a Challenge to industry and other stakeholders that would have information concerning the highest priority substances emerging from the categorization of the Domestic Substances List under the *Canadian Environmental Protection Act, 1999*. Substantial progress will be achieved on the Challenge: every three months industry and stakeholders will be asked to provide information on groups of 15 to 30 substances. This will be followed by the publication of screening assessments and the engagement of stakeholders on the development of risk management approaches. The first draft assessments were published in January 2008 in accordance with the timelines set in the *Canada Gazette* notice of December 2006.

For more information, visit the Chemical Substances site at:
www.chemicalsubstances.gc.ca.

Canada will also continue its leadership internationally on chemicals management to address global challenges. Canada will leverage actions through the sharing of scientific information, best practices and sound management approaches and will continue its presence at fora such as the Commission for Environmental Cooperation on the Sound Management of Chemicals and the Strategic Approach to International Chemicals Management. Canada will also work with a number of key partners on a cooperative

regulatory approach, and will participate in the Organisation for Economic Co-operation and Development's chemicals work.

Looking forward, the Department will consider emerging potential risks such as those posed by nanomaterials or animal biotechnology by identifying, assessing and managing risks before they put human health and the Canadian environment in jeopardy.

For more information on the New Substances Program, visit: ec.gc.ca/substances/nsb/.

Investments made in research activities will support and inform risk assessment decisions as scientific information needed to support risk assessment programs becomes available. Monitoring activities to inform risk management decisions and measure the efficiency of risk management measures will also be key. The Department will develop plans for addressing research and monitoring needs.

Environment Canada continues to fulfill its mandate under the *Canadian Environmental Protection Act, 1999* (CEPA 1999) and the *Fisheries Act* in priority areas such as the following:

- Marine protection: assessing waste and other matters for disposal-at-sea
- Management of risks to the aquatic environment: through the continued management of the *Pulp and Paper Effluent Regulations* and the *Metal Mining Effluent Regulations*
- Waste management: developing and implementing end-of-life risk management strategies and instruments
- Transboundary movements under the *Export and Import of Hazardous Waste and Recyclable Material Regulations*: ensuring Canada's domestic interests and priorities are represented in international fora
- Wastewater effluents: implementing the Canada-wide strategy adopted by the Canadian Council of Ministers of the Environment (CCME)
- Federal House: developing and implementing an appropriate environmental management framework to ensure that environmental performance meets or exceeds federal environmental laws and is compatible with provincial, territorial and municipal standards

Environment Canada will continue to coordinate the Federal Contaminated Sites Action Plan, a government-wide federal program to assist federal departments, agencies, and consolidated Crown corporations to remediate their federal contaminated sites. Environment Canada will continue to manage its own contaminated sites in accordance with its Contaminated Sites Management Plan.

For more information on federal contaminated sites, visit: www.tbs-sct.gc.ca/fcsi-rscf/.

In the area of legislative and regulatory enforcement, the Government of Canada has recognized the importance of a fair, predictable and consistent federal enforcement capacity for environmental protection. To this effect, Budget 2007 provides resources

that enable Environment Canada to increase the number of enforcement officers by 50 percent by the end of the 2008–2009 fiscal year. Concurrent with the hiring of additional enforcement officers, Environment Canada intends to renew its enforcement strategy, develop a national inspection plan and continue to deliver national enforcement training programs for effective and efficient enforcement operations.

Risks and Challenges

In order to meet our obligations, as mandated by CEPA 1999, Environment Canada's mitigation strategy is to evaluate priorities on a multi-year basis and focus on "must-do" activities. Rigorous priority setting and leveraging of new opportunities must be accompanied by re-investment in infrastructure, capital and highly qualified personnel to ensure the continued effective and efficient program delivery from Environment Canada's research and science capacity.

Further details on program areas related to reducing risks to Canadians from toxic and other harmful substances:

Program Area: Risk assessment
Activities: – Generate scientific information and knowledge to facilitate the assessment and management of risks from toxic and other harmful substances – Assess the risk posed by substances already in use or released into the environment, including the priority substances identified in the Chemicals Management Plan – Collaborate with Health Canada toward an integrated approach to substance assessment and management regimes as articulated in the Chemicals Management Plan – Improve the CEPA 1999 regulatory framework to address potential risks from substances produced by biotechnology or nanotechnology
Expected Results: – Comprehensive programming for assessing the risk posed by substances already in use or released into the environment is implemented, including the priority substances identified in the Chemicals Management Plan – New substances (chemicals, polymers and living organisms) are being assessed before introduction into the Canadian marketplace – A regulatory strategy is implemented to identify and address risks from nanomaterials and micro-organisms
Indicators: – Number of categorized commercial chemicals assessed – Percentage of new substance notifications assessed within regulatory timeframes – Regulatory framework instruments in place to more effectively address products of biotechnology and nanotechnology – Independent recognition of the quality of Environment Canada's science and technology and science and technology management – Use of provided research and scientific information by decision-makers

Program Area: Development of risk management strategies

Activities:

- Implement control actions, such as regulations and related instruments, to manage risks caused by toxic and other harmful substances released by the public, chemical, waste, natural resources, and energy and transportation sectors
- Develop regulations and related instruments supporting the implementation of the Chemicals Management Plan
- Conduct streamlining of environmental regulation according to Treasury Board directive
- Collaborate internationally toward aligned approaches regarding the management of chemicals over their life cycle

Expected Results:

- Risks related to the release of toxic and other harmful substances from the public, chemical, waste, natural resources, and energy and transportation sectors are managed
- Environmental performance within the Federal House and Aboriginal lands meets or exceeds federal environmental laws and is compatible with provincial, territorial and municipal standards for the jurisdiction in which they are located
- Regulations and instruments pertaining to the Chemicals Management Plan are efficiently and effectively implemented

Indicators:

- Number of risk management strategies, instruments and initiatives developed and implemented
- Number of regulations and other instruments being developed or planned as part of a Federal House regulatory framework
- Canadian regulations reflect compliance with international obligations
- Industry rate of compliance with regulations

Program Area: Environmental enforcement

Activities:

- Promote and enforce compliance with CEPA 1999 and the pollution prevention provisions of the *Fisheries Act* through on-site and off-site environmental inspections on land and water where Environment Canada has jurisdiction and by reviewing submitted records
- In the case of suspected violations, employing intelligence gathering and analysis, and the available tools mandated by CEPA 1999 and the *Fisheries Act*, including inspections, sampling, tests and/or measurements, surveillance under warrant, investigations, orders by the Minister and by enforcement personnel, injunctions and prosecutions to secure compliance

Expected Results:

- Increased compliance with CEPA 1999 and the pollution prevention provisions of the *Fisheries Act* by polluters and potential polluters
- Reduced number of events contravening relevant legislation and related regulations

Indicators:

- Number of inspections conducted
- Number of investigations produced
- Number of prosecutions conducted
- Number of charges laid
- Number of tickets issued
- Number of written warnings transmitted
- Number of Environmental Protection Alternative Measures (EPAMs) negotiated
- Number of Environmental Protection Compliance Orders (EPCOs) transmitted

Program Area: Risk mitigation

Activities:

- Support environmental emergency lead agencies and first responders by providing specialized scientific and technical information and advice on chemical substance fate and effects, with containment and clean-up measures
- Support the Chemicals Management Plan (CMP) in completing emergency risk assessments of priority substances
- Provide technical expertise and advice on marine pollution and meet CEPA 1999 and international obligations on disposal-at-sea assessment, permitting and monitoring
- Manage the Federal Contaminated Sites Program, providing advice on the remediation of federal contaminated sites

Expected Results:

- Risks to Canadians and their environment from environmental emergencies are reduced
- Environmental risks and federal financial liability stemming from federal contaminated sites are reduced
- Impacts to our coasts and oceans are reduced through regulatory controls and coordinated risk-based management

Indicators:

- Number of emergency risk assessments of CMP priority substances produced
- Use of provided scientific and technical support by decision-makers during environmental emergencies
- Number of monitored disposal-at-sea sites that have little or no impact on the marine environment
- Number of highest-risk federal sites funded under the Federal Contaminated Sites Action Plan where remediation or risk management or care and maintenance is underway or completed

Partners: Other government departments and agencies (e.g. Department of Justice Canada, Fisheries and Oceans Canada, Agriculture and Agri-Food Canada, Health Canada, Natural Resources Canada, National Defence, Transport Canada, Industry Canada); other levels of government; Aboriginal governments and organizations; industry; environmental, health and other non-governmental organizations; international organizations; academia

Program Activity 3B – Canadians adopt sustainable consumption and production approaches

Results Context

The generation, collection and reporting of environmental and pollution information is crucial for a number of reasons, including making informed decisions, conducting regulatory reporting, meeting international obligations, as well as educating Canadians about the connection between their actions and environmental, health and economic outcomes. Providing this information is also essential for encouraging behavioural change and the subsequent adoption of sustainable consumption and production approaches; for supporting risk assessment and risk management activities; for assessing progress toward greenhouse gas and air emission targets; and for supporting and enabling key decision-makers.

An informed public and issue-literate decision-makers are important preconditions to advancing more sustainable consumption and production practices. The need for action and the need to ensure that decision-making is analytically based are fundamental to fostering and developing a sustainable economy.

Planning Context

This Program Activity provides a focus for the Department's longer-term efforts to reduce the cost of unsustainable consumption patterns and to shift industry towards more sustainable forms of production. It also provides a focus for the collection, development, analysis and reporting of information and data on environmental pollutants and greenhouse gases. Underlying this will be the creation of a clear and predictable environmental protection regime, designed to encourage and enable sustainable consumption and production.

Current Status and Future Positioning

The *Canadian Environmental Protection Act, 1999* (CEPA 1999) and its administration must be reviewed by Parliament every five years. This Parliamentary review provides the Government of Canada with an opportunity to assess the contribution of CEPA 1999 to the goals of pollution prevention, sustainable development and federal/provincial/territorial/Aboriginal cooperation. The Parliamentary review also provides an opportunity for Canadians to provide feedback on how well they feel the Act is protecting their environment and health. The CEPA 1999 review was launched in May 2006 by two Parliamentary Committees, one in the House of Commons and the other in the Senate. The House of Commons review by the Standing Committee on Environment and Sustainable Development has heard from over 30 organizations including environmental groups, industry and academics.

In May 2007, the House of Commons Standing Committee on Environment and Sustainable Development tabled its report, "The *Canadian Environmental Protection Act, 1999* – Five-Year Review: Closing the Gaps". The general conclusion of this report was

that the basic architecture of the Act is sound and that the Government's future focus should be to fully explore the powers of the Act.

The Government tabled its interim response to this report in October 2007. The interim response will be followed by a final consolidated response after the Senate Committee report is released.

It is anticipated that the Senate Standing Committee on Energy, the Environment and Natural Resources will table its report early in 2008. The Government will then have 150 days to table its final consolidated response to both committee reports. If changes to the legislation are deemed necessary, Environment Canada and Health Canada will develop a bill amending the Act.

In order to achieve our environmental protection objectives we are engaged in actions that support appropriate choice of instrument, as well as efficient, consistent and transparent regulatory decision-making processes. We promote compliance through effective, efficient and coordinated measures, and undertake technology research and development to assess whether emerging technologies will aid industry in meeting its regulatory obligations.

In the area of generating and collecting data on environmental pollutants and greenhouse gases (GHGs), the focus will be on developing a single-window reporting system. This system will enable the integration of various data collections supporting the Clean Air Regulatory Agenda (CARA), and foster improvement of criteria air contaminant (CAC) and GHG emissions estimation techniques and data quality.

Improvements to estimation techniques and the quality of data collected and generated will increase decision-makers' confidence with respect to using environmental data to set priorities, ascertain compliance and meet various domestic and international reporting requirements (e.g. the Greenhouse Gases National Inventory Report, Canada-wide Standards for Particulate Matter and Ozone, Canada-United States Air Quality Agreement).

Additional activities are anticipated for enhanced emissions quantification and verification. These include activities to support CEPA 1999 section 71 data collection, management and quality assurance, and verification activities in support of CARA. Other activities include the implementation of a Canadian accreditation system for GHG verification bodies and the development of a National Occupational Standard for GHG verifiers; quality control, assurance and verification of GHG emissions and air pollutants and underlying data; accurate quantification of domestic emissions reductions, sink enhancement programs and emissions trading schemes; and enhanced emissions estimates, trends and projections for selected pollutants such as benzene, polycyclic aromatic hydrocarbons and ammonia.

Planned activities also include the development of tools to better process emissions data, allowing for more rapid and responsive air quality modelling to assess and verify the potential impacts of different reduction strategies.

Lastly, to ensure consistency and standardization in protocols and methodologies for estimating emission reductions, future activities also envision the development of ISO standards and Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance for emissions quantification, verification and reporting.

The harmonization and integration of reporting will reduce the efforts required for industry to report and governments to collect the data, as well as ensuring consistency in the data used and published by different jurisdictions. Together, these efforts will allow the Department to become an authoritative source of information on pollution.

Risks and Challenges

Challenges regarding pollutant information are to provide more comprehensive estimates of releases for more pollutants, and to undertake greater analysis of pollutant release data alongside other related data sources. Simultaneously, there are challenges related to the integration of previously decentralized data collection and management activities, as well as the time constraints for near-term pre-publication of GHG regulations (fall 2008) and mid-term pre-publication of air emission regulations (winter 2009).

Through the National Pollutant Release Inventory (NPRI), information on releases from large industrial sources is currently available for over 300 pollutants. Comprehensive inventories of air releases in Canada (including industrial and commercial sources, transportation, residential and natural sources) are available for certain pollutants: criteria air contaminants (pollutants that contribute to smog and acid rain), heavy metals (mercury, cadmium and lead) and persistent organic pollutants (dioxins and furans, polycyclic aromatic hydrocarbons and hexachlorobenzene). In order to understand and appropriately manage pollution, it is important to have a more comprehensive view of non-industrial sources and releases to media other than air. Greater analysis of pollutant release data alongside other information sources (e.g. ambient air quality and economic information) will provide a more comprehensive picture of pollution in Canada, thus helping to target actions and support decision-making.

Further details on activities related to sustainable consumption and production:

Program Area: Canadians and decision-makers are informed of environmental pollution and greenhouse gases risks and trends and future action to take
Activities: Provide and maintain timely and relevant information on emissions of environmental pollutants and greenhouse gases to support decision-making
Expected Results: Canada continues to meet domestic and international obligations for providing information on emissions of environmental pollutants and greenhouse gases, in support of both the Clean Air Regulatory Agenda (CARA) and the Chemicals Management Plan (CMP)
Indicators: – Development of a "single-window reporting system" for categorized substances, air emissions and greenhouse gases – Maintenance and improvement of the National Pollutant Release Inventory (NPRI) – Maintenance and improvement of the National Inventory Report (NIR), and international obligations are met (notably with the United Nations Framework Convention on Climate Change – UNFCCC) – Greenhouse Gas Emissions Reporting Program (GHGERP) is maintained and improved, and domestic obligations are met (CARA, CEPA 1999) – Maintenance and improvement of criteria air contaminants (CAC) inventories, and satisfaction of international obligations – Maintenance and improvement of Canadian Environmental Sustainability Indicators (CESI) contribution on greenhouse gas emissions
Partners: Other government departments (e.g. Agriculture and Agri-Food Canada, Natural Resources Canada, Statistics Canada), other levels of government, United Nations and multilateral organizations (UNFCCC, IPCC, UN ECE), standards organizations (ISO, CSA), small and medium-sized enterprises, financial community, industrial sectors, etc.

Program Area: CEPA 1999 governance
Activities: Deliver on statutory governance requirements determined by CEPA 1999 and other processes aimed at increasing the effectiveness of CEPA 1999 mechanisms
Expected Results: – Canadians are more aware of CEPA 1999 – Federal/provincial/territorial/Aboriginal cooperative mechanisms (e.g. CEPA National Advisory Committee – NAC) and agreements (e.g. equivalency agreements, administrative agreements and Canada-wide standards) are used to facilitate inter-jurisdictional actions to reduce the effects of pollution – Issues identified by Environment Canada, Health Canada and the Parliamentary Committees' recommendations are addressed, if applicable, in an amended Act – Legislative reform projects are achieved in support of ecosystem sustainability and environmental protection – Access to current information related to CEPA 1999 is improved – Weaknesses identified by the CEPA 1999 program evaluation are addressed (especially performance measurement and governance issues)

Indicators:

- The availability of CEPA 1999 annual reports as soon as possible after the end of each fiscal year
- Administration of the National Advisory Committee (NAC) Secretariat so that the Committee can fulfill its mandate of enabling national, cooperative action and avoiding duplication in regulatory activity among governments. One or two face-to-face meetings and approximately four teleconferences each year
- Tabling of a final consolidated government response 150 days following the release of the Senate Standing Committee report on its review of CEPA 1999
- Drafting of amendments to CEPA based on the amendments proposed in the response; timely input to Parliamentary process during bill review phases
- Maintenance of CEPA Environmental Registry with up-to-date information and continual improvement of website for user friendliness, reflecting the results of the opinion research done in 2007 and ongoing stakeholder comments

Partners:

Health Canada, Department of Justice Canada, and other government departments; standing committees; CEPA stakeholders (industry, environmental and health non-governmental organizations, academics, Aboriginal groups); CEPA NAC; Canadian Council of Ministers of the Environment CEPA Review Committee; parliamentarians; general public

Program Area: Implementation of risk management strategies and measures

Activities: Provide oversight function and centre of expertise for instrument choice to the Department's risk management community. Provide best practices, guidance materials and training for design and implementation of performance agreements, pollution prevention planning notices and other regulatory and non-regulatory measures

Expected Results

- Implement Cabinet Directive on "Paper Burden Reduction Initiative" (PBRI)
- Regulatory capacity is strengthened and regulatory activities under Environment Canada statutes are in accordance with the Cabinet Directive on Streamlining Regulation, including performance measurement
- A quality management system (QMS) for regulating under CEPA 1999 and other Environment Canada statutes is developed and implemented
- Policy frameworks for decision-making under CEPA 1999 (i.e. virtual elimination and product policy) and other Environment Canada statutes are developed
- Develop a governance structure for biotechnology
- Information is coordinated and disseminated to the risk management community

Indicators:

- Proportion of risk management instruments that are selected in accordance with departmental standards and best management practices from centre of expertise
- Proportion of future risk management instruments that include a performance measurement mechanism
- Proportion of risk management instruments and tools that are designed and implemented in partnership with the instrument centre of expertise
- Completion of milestone progress report to Industry Canada and submission of PBRI achievements
- Availability of regulatory training for regulators within Environment Canada
- Regulators' compliance with new requirements of the Cabinet Directive on Streamlining Regulation (i.e. life-cycle management approach)

Partners:

Environment Canada's risk assessment/management community (particularly risk managers and common services) and other government departments and agencies (Health Canada, Treasury Board of Canada Secretariat, Canada School of Public Service, Community of Federal Regulators (CFR), Department of Justice Canada, etc.)

Program Area: Strategic approaches to technology solutions

Activities: Provide strategic approaches, scientific expertise and advice to influence Government of Canada (GoC) technology initiatives to support Environment Canada regulatory priorities. Provide secretary/oversight functions for some GoC technology initiatives.

Expected Results:

- Generate technology knowledge and tools to support informed scientific decision-making under Environment Canada's regulatory priorities, and to ensure that federal technology investments have value for money, optimize environmental benefits and do not impact negatively on the environment
- Maintain technology networks and disseminate knowledge of emerging and innovative technologies on a timely basis to environmental decision-makers and the public

Indicators:

- Discussion of Environment Canada priorities by GoC multi-departmental working groups on technology and subsequent taking into account of these priorities in the working groups' recommendations
- Reports of findings on new clean air, climate change, water treatment and waste management technologies are presented in scientific publications, reports and oral presentations
- Scientific and technical-based evidence in support of Environment Canada's Renewable Fuel Framework (RFF) activities:
    - creation and expansion of Environment Canada's Bioenergy and Environmental Science and Technology (BEST) Group
    - generation of baseline environmental data in support of RFF
- Technology foresight: Establishment of a list of technologies and fields of technology development that will help enable the regulation of primary Canadian sectors
- Assessment of proposals submitted to various GoC-supported programs in terms of their potential environmental performance
- Monitoring of funded technologies for their ongoing performance and assessment of these innovative technologies in terms of their potential contribution to environmental protection

Partners: Other federal departments, international organizations, municipalities, standards associations, industry, environmental non-government organizations, and small and medium-sized enterprises

Program Area: Strategic approaches to compliance promotion and analysis
Activities: Coordinate Environment Canada strategic actions toward CEPA 1999 compliance promotion
Expected Results: – Compliance promotion is offered in an effective, efficient and coordinated manner – Environment Canada acquires a greater knowledge of the existing and emerging communities subject to the risk management instruments – Persons who are subject to CEPA 1999, the pollution prevention provisions of the *Fisheries Act* and their related risk management tools, are aware of and understand their obligations and make steps (technological or behavioural changes) towards compliance
Indicators: – The numbers of compliance promotion activities and material available to Canadians in a timely and effective manner – Level of compliance with CEPA 1999, the pollution prevention provisions of the *Fisheries Act* and related risk management instruments – The lists of persons subjected to CEPA 1999 regulations, other risk management tools, and the pollution prevention provisions of the *Fisheries Act* that have been reviewed and updated. The number of emerging regulated communities identified
Partners: Transport Canada, the Royal Canadian Mounted Police, the Canada Border Services Agency, Department of Justice Canada, Fisheries and Oceans Canada, the Canadian Coast Guard and provincial/territorial environment ministries

Program Activity 3C – Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced

Results Context

Air pollutants and greenhouse gas (GHG) emissions, or air emissions, come from a variety of sources, some of the most important being the combustion of fossil fuels from industries, transportation and heating. Emissions from these types of sources are not only a problem where they originate. Air pollutants released in one place can travel long distances, and consequently, can have an impact on communities hundreds and even thousands of kilometres away. Greenhouse gases, emitted into the atmosphere, contribute to the global phenomenon of climate change.

Canadians consistently rank air pollution among their main environmental concerns. They say that the quality of the air they breathe is an important factor in their quality of life—especially in our major cities. In fact, a good proportion of Canadians live in places with air pollutant levels above acceptable standards. Nationally, ozone exposure has increased an average of 0.8 percent per year from 1990 to 2005. Until recently, smog has been mostly a summer problem. But now it is also becoming a more serious concern in the winter when stagnant conditions can allow a build-up of pollutants in the air. Recent health studies indicate that smog and poor air quality continue to be directly responsible for thousands of premature deaths each year in Canada and for hundreds of thousands of hospital admissions and emergency visits. Particularly at risk are children, the elderly and those with existing respiratory conditions that are exacerbated by air pollutants.

Other air pollutants such as mercury, cadmium, lead, persistent organic pollutants and ozone-depleting substances are also a major concern to Canadians. Due to global atmospheric transport and other pathways, the Arctic region, including the Canadian Arctic, is a major receptor of these pollutants and their associated effects.

Canadians are also concerned about their changing environment. GHGs are altering the climate. Global temperature averages have risen 0.74°C over the last 100 years. In the November 2007 fourth assessment report of the Intergovernmental Panel on Climate Change, international scientists have projected that average global temperatures could rise by as much as 1.8°C to 6.4°C by the end of the 21st century. In Canada, average temperatures could rise by as much as 5°C to 10°C in some regions.

Reducing the emissions that cause climate change and contribute to air pollution is a matter of national concern. Harmful air emissions affect our health, our environment and our economy as well as our quality of life.

Previously, air pollutants and GHGs were treated separately despite the fact that they often come from the same sources. Innovative strategies, programs, and partnerships are required to protect the health of Canadians and the environment from the harmful effects of air pollution. Despite progress in addressing clean air issues and reducing transboundary and international emissions as well as those from major industrial,

transportation and other sectors, continued action is needed. For example, in 2005, Canada's total GHG emissions were estimated to be 25 percent higher than in 1990.[8]

An integrated approach to regulating air pollution and GHG emissions is important in order to reduce emissions and pollution in a way that achieves the best possible outcomes. An integrated approach can also increase opportunities for formulating goals that take into account potential problems and conflicts, and increase the possibility of finding an optimal solution for the mitigation of both issues.

Planning Context

This Program Activity consists of reducing risks to the environment and to human health from air pollutants and GHG emissions. Under this Program Activity, environmental and human health threats posed by air pollutants and GHG emissions are managed through the regulation of industry, transportation and consumer products. These regulations are coordinated with and complementary to other initiatives designed to encourage actions to reduce air pollutants and GHG emissions.

Current Status and Future Positioning

Beginning in the fall of 2006, the Government announced a series of initiatives to promote the Clean Air Agenda. In October 2006, the Government announced its intention to introduce stringent new regulations to protect the environment and the health of Canadians from air pollution and GHGs.

In April 2007, the Government of Canada put forward *Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution.* This action plan will:

- impose mandatory targets on all major industrial sources of GHG emissions, helping to place Canada on the path to achieve a 20 percent reduction in emissions by 2020;
- cut air pollution from industry by up to half by 2015;
- regulate the fuel efficiency of cars and light-duty trucks, beginning with the 2011 model year; and
- strengthen energy efficiency standards for energy-consuming products, such as light bulbs and washers and dryers.

In addition, the Government is implementing a wide range of measures to promote the development and deployment of clean energy and transportation technologies. The Government will also establish a carbon emissions trading market that will give business the incentive to run cleaner, greener operations.

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[8] *Canadian Environmental Sustainability Indicators,* Feature report (2007). Available at www.ec.gc.ca/environmentandresources/CESIFeature2007/Feature2007_e.cfm

Also in April 2007, Canada's Minister of the Environment and the Administrator of the U.S. Environmental Protection Agency announced the start of negotiations for an annex to the Canada-United States Air Quality Agreement aimed at reducing the cross-border flow of air pollution and its impact both on the health of Canadians and Americans and of ecosystems in general.

In December 2007, the Government of Canada took the first step in implementing the Clean Air Regulatory Agenda by publishing a *Canada Gazette* notice under section 71 of the *Canadian Environmental Protection Act*, 1999 (*CEPA 1999*), with respect to reporting information on air pollutants, GHGs and other substances for the 2006 calendar year. Under this notice, the Minister of the Environment requires major industries to provide information on their emissions of air pollutants, GHGs and other substances for the year 2006 by May 31, 2008, as part of the regulatory development process set out in the April 2007 Regulatory Framework for Air Emissions.

Additional measures have been developed to support demonstrable action by government, individual Canadians, organizations and businesses to reduce GHG emissions and air pollutant levels and to provide effective responses to climate change. For example, one of these measures—announced in Budget 2007—will provide funding to significantly expand current efforts to accelerate the retirement of old, high-polluting personal vehicles. Other initiatives will expand Environment Canada's work with non-government organizations to encourage actions by Canadians that will result in measurable reductions in air pollution and GHG emissions. The overall Clean Air Agenda is led by Environment Canada, and involves eight federal departments and agencies. It is just one example of how Environment Canada is working with partners and engaging Canadians. The overall initiative will be managed through a horizontal management framework to facilitate coordination among departments and to support a systematic review of funding, performance monitoring and reporting. Progress on the outcomes of the initiative will be reported in future years through this framework.

On the international front, the Government of Canada is committed to tackling climate change and working with the international community to develop a post-2012 agreement under the Framework Convention on Climate Change that involves the adoption of ambitious GHG reduction targets by all major emitters. The Government is also committed to continuing its work with other countries to seek reductions in other air pollutants including persistent organic pollutants, mercury and ozone-depleting substances.

For more information, visit the Clean Air Online website at:
www.ec.gc.ca/cleanair-airpur.

Risks and Challenges

The Government's Clean Air Regulatory Agenda is a major regulatory initiative, larger than any previous regulatory action taken by the federal government. Timelines set to achieve outcomes under this agenda are demanding and will require sustained and

intensive efforts in consultations, regulatory policy development and related activities. Other key challenges include the following:

- ensuring Canada's long-term competitiveness and building on our environment and economic policy framework
- implementing a regulatory system that will achieve short-, medium- and long-term emission reductions
- addressing key science, technical/engineering and financial challenges
- ensuring that Environment Canada's internal capacity is best organized to provide government-wide leadership on the issue.

Further details on activities related to reducing risks from air pollutants and GHG emissions:

Program Area: Strategic approaches to manage air pollutants and greenhouse gas emissions effectively reduce risks
Activities: Development of regulatory framework and underlying instruments aimed at reducing atmospheric pollution in Canada
Expected Results: – Implement a regulatory framework and develop underlying regulations and complementary measures to reduce emissions of air pollutants and GHGs – Continue to provide the scientific information needed to inform pollution management in Canada – Ensure support for enforceability and accountability of the regulatory system
Indicators: – Implementation of regulations to reduce emissions for industrial sectors – Implementation of reporting system in support of regulations – Canadians are informed about air quality science – Reporting of changes in air quality

Program Area: International collaboration on air pollutants and GHG emissions is consistent with Canadian interests
Activities: Conduct negotiation and cooperation activities toward air pollutant and GHG emission reductions that are consistent with Canadian interests
Expected Results: – Strengthen international cooperation – Negotiate a particulate matter annex to the Canada-United States Air Quality Agreement – Secure global reductions in persistent organic pollutants, heavy metals and ozone-depleting substances
Indicators: – Bilateral or multilateral agreements with other countries

Program Area: Risks from air pollutants and greenhouse gas emissions from industrial sectors are managed

Activities: Development of risk management strategies pertaining to air pollutants and greenhouse gas emitted from industrial sectors within the Canadian economy

Expected Results:

- Initiate the development of regulations to reduce air emissions from the electricity sector and from other stationary energy sources
- Continue the regulatory development for oil sands, upstream oil and gas, pipelines, refinery and fugitive emissions.
- Development of regulations and other measures to reduce volatile organic compound emissions from targeted sectors (e.g. paints and coatings)
- Development of instruments and measures to address air pollutants and GHG emissions from the pulp and paper and wood products sectors
- Development of regulations and other measures to address air pollutants and GHG emissions from the chemicals manufacturing sector (including fertilizer production)
- Development of instruments and measures to address air pollutants and GHG emissions from the potash, iron ore pellet, aluminium, base metal smelting, iron and steel, cement and lime production sectors

Indicators:

- A progress report on the regulatory development for the electricity sector and other stationary combustion sources
- Development of instruments and measures to address GHG emissions from the oil and gas sectors; completion of analytical work to define air pollutants objectives
- Development of regulations and other measures to reduce volatile organic compound emissions from targeted sectors (e.g. paints and coatings)
- Development of instruments and measures to address air pollutants and GHG emissions from the pulp and paper and wood products sectors
- Development of regulations and other measures to address air pollutants and GHG emissions from the chemicals manufacturing sector (including fertilizers)
- Development of instruments and measures to address air pollutants and GHG emissions from the potash, iron ore pellet, aluminium, base metal smelting, iron and steel, cement and lime production sectors

Program Area: Risks from air emissions are managed by regulatory systems for transportation and other sectors

Activities: Development of risk management strategies pertaining to air pollutants and greenhouse gases emitted from the transportation and other sectors within the Canadian economy

Expected Results:

- Regulations to reduce air pollution from vehicles and engines are developed
- The science needed to inform the development of standards and regulations in the transportation sector is provided
- Federal regulations on renewable fuels are developed
- Regulations to reduce emissions associated with use of refined transportation fuels are developed

Indicators:

- Integrated Canada-U.S. standards
- Development and implementation of transportation-related regulations
- Development of regulations respecting renewable fuels
- Development of regulations respecting transportation fuels

Partners: Health Canada, Natural Resources Canada, Industry Canada, Agriculture and Agri-Food Canada, Transport Canada, Department of Finance Canada, Foreign Affairs and International Trade Canada, other levels of government, international bodies (Organisation for Economic Co-operation and Development, International Organization for Standardization, United Nations Environment Programme), academic institutions, environmental non-governmental organizations and industry associations

Strategic Outcome 4: Sustainable urban development and infrastructure renewal in the Toronto waterfront area

Description

Environment Canada's commitment to this Strategic Outcome is manifest through the management and oversight of two separate but linked contribution programs on the Toronto waterfront: (1) the Toronto Waterfront Revitalization Initiative (TWRI) and (2) the Harbourfront Centre (HC) Funding Program.

1) The TWRI is a $1.5 billion initiative with investments of $500 million from each of the province of Ontario, the municipality of Toronto and the federal government. It is both an infrastructure and urban renewal investment. The goals of the TWRI include positioning Canada, Ontario and Toronto in the new economy and thus ensuring Canada's continued success in the global economy and increasing economic growth and development opportunities. Given the intrinsic links between economic, social and environmental health, the objectives also include enhancing the quality of life in Toronto and encouraging sustainable urban development.

The purpose of the TWRI is to revitalize the Toronto waterfront through investments in both traditional city-building infrastructure, such as local transportation and sewers, and more contemporary urban development, including parks, green spaces, tourism-related facilities and the rebirth of underutilized post-industrial areas. It is expected that investments in these areas will result in both social and economic benefits for the Toronto region.

The Toronto Waterfront Revitalization Corporation (TWRC) is the entity tasked by the three governments with overseeing the revitalization of the waterfront. It was established under provincial legislation as an interim corporation in 2001 and continued as a permanent corporation under the *Toronto Waterfront Revitalization Corporation Act, 2002.*

From October 2000 to March 2004, the initiative was managed on behalf of the federal government by the Minister of Transport. On March 8, 2004, responsibility for the file was transferred to the Minister of Human Resources and Skills Development, in keeping with the Minister's role as Minister responsible for Ontario. This initiative was transferred to the Minister of Citizenship and Immigration on February 4, 2005, and to the Treasury Board of Canada Secretariat on February 6, 2006, and has been housed at Environment Canada since January 4, 2007. Federal funding under this initiative is scheduled to sunset March 31, 2011.

Under this initiative, the federal TWRI Secretariat at Environment Canada manages the grants and contributions program focused on investments in infrastructure and urban renewal and advises the Minister with respect to the Minister's responsibilities under the Act. A tri-government Long-Term Funding Plan (LTFP) has been prepared in 2007–2008

that is consistent with a focus on federal priorities. The LTFP accommodates both the individual and shared priorities of the three governments while still maintaining the overall vision and coherence of the waterfront revitalization. The range of projects agreed to in the LTFP fully commits each government's $500 million investment in waterfront revitalization

Of the $500 million, Infrastructure Canada has responsibility for managing $65 million for the GO Transit project and Transport Canada has responsibility for managing $25 million for the air-rail link project, for a total of $90 million under separate terms and conditions. Of the $410 million managed by the federal TWRI Secretariat at Environment Canada, $123.8 million has been paid to date since the inception of the program in 2001 with the remaining balance of $286.2 million allocated to specific projects as set out in the LTFP.

2) Harbourfront Centre (HC) is a not-for-profit, provincially incorporated organization created in 1990 to manage cultural and educational programming activities. It is responsible for the operation of 10 key acres of the Toronto waterfront on behalf of the public, as well as managing and programming all the public facilities on the site. The organization receives its funding from a number of sources including the City of Toronto, private sector contributors, and from revenues generated from cultural program fees, and commercial property operations.

Its mission is "to nurture the growth of new cultural expression, stimulate Canadian and international interchange and provide a dynamic, accessible environment for the public to experience the marvels of the creative imagination." More specifically, HC provides a vast array of arts and culture programming for all ages, including visual arts, crafts, literature, music, dance and theatre.

In 2006, HC identified a shortfall in base operational funding. The federal government entered into a contribution agreement with HC to facilitate an immediate $4 million cash flow, which has allowed HC to remain operational. Subsequent to this funding, the HC Funding Program was initiated in December 2006. Responsibility for the multi-year $21 million HC Funding Program has been assigned to the federal TWRI Secretariat within Environment Canada along with its responsibility for the TWRI program. The HC Funding Program sunsets in March 31, 2011.

The federal responsibilities for the HC Funding Program relate to the development and management of a contribution agreement that specifies the terms and conditions of the operational funding. The funding provides a stable foundation for HC's administration and operations. It enhances management's ability to leverage funding from other government and corporate sources with the intent of the organization becoming self-reliant. It also increases management's ability to pursue other revenue-generating strategies that ensure ongoing community access to HC's cultural, recreational and educational facilities. This ultimately leads to a financially viable operation that supports the economic, social and cultural development of the Toronto waterfront.

As is the case with the TWRI, the HC Funding Program results tie into the strategic outcome of the Program Activity Architecture of Environment Canada through the sustainable urban development and infrastructure renewal on the Toronto waterfront.

Planned Financial and Human Resources by Program Activity

Program Activities ($ millions)	2008–2009		2009–2010		2010–2011	
	$	FTEs	$	FTEs	$	FTEs
Revitalization of the Toronto Waterfront	**87.1**	**12**	126.0	12	16.4	12
Harbourfront Corporation	**5.0**		5.0		5.0	
Totals	**92.1**	**12**	**131.0**	**12**	**21.4**	**12**

Expected Results and Key Measures

Program Activity	Expected Results	Indicators
Revitalization of the Toronto waterfront	Increased accessibility to and usage of waterfront area	• Square metres of recreation space — planned, under construction, completed • Square metres of commercial space — planned, under construction, completed, occupied • New public transit capacity as indicated by kilometres of new service • Number of affordable and other residential housing units — planned, under construction, completed, occupied
	Revitalized urban infrastructure	• Square metres of recreation space — planned, under construction, completed • Number of planned and completed projects for habitat restoration and shoreline protection • Number of hectares of parklands and green space planned, constructed and secured for public ownership • New public transit capacity as indicated by kilometres of new service • Square footage and value of residential and commercial space — planned, under construction, completed, occupied

	Improved environmental management of the waterfront area	• Number of hectares of land secured under public ownership • Number of hectares of parklands and green space planned and constructed • Number of hectares of flood-susceptible land in plan for flood protection • Number of hectares of land removed from the flood plain • Number of LEED-certified building units — planned and constructed
Harbourfront Corporation	Stable foundation for HC administration and operations	• Preservation of HC as a going concern • Support for fixed operational and maintenance costs
	Ongoing community access	• Ongoing community access to the HC site and its capital facilities

Plans and Priorities

For 2008-2009, EC will focus on the following key priorities:

1. Develop and implement a federal approach to ensure the completion of relevant projects by 2011. This will involve the creation of plans and reports that will assist the federal TWRI Secretariat to meet program objectives by the sunset date of March 31, 2011.

2. Information sharing with the province and municipality on project monitoring activities will further strengthen intergovernmental program management and accountability mechanisms.

3. Environment Canada will seek to enhance awareness of federal presence with respect to the Toronto waterfront area. This will be achieved by continued participation in media events on the Toronto waterfront. Additionally, the Department will work collaboratively and seek out expertise related to emerging Toronto waterfront projects from other federal government departments.

Program Activity 4A – Revitalization of the Toronto Waterfront

Results Context

While the original vision of the TWRI was that all three governments would commit to a set of shared priorities and projects on an equal funding basis, as the initiative evolved, the respective governments identified both shared and individual priorities. The federal government identified its priorities as parks, recreation and green spaces. The federal

TWRI Secretariat is responsible for the management and coordination of the federal contribution to the renewal and revitalization of Toronto's waterfront.

Planning Context

In order to achieve the goals of the TWRI, Environment Canada will work collaboratively and seek out expertise related to emerging innovative Toronto waterfront projects from other federal government departments. Additionally, the Department will ensure sound management and strong stewardship of federal funds through the continued utilization of program management tools developed by the federal TWRI Secretariat.

Current Status and Future Positioning

The TWRI continues to evolve from a planning phase to an implementation phase as more and more of the physical construction phase of the projects is undertaken on the Toronto waterfront. The three orders of government are working in collaboration to ensure the success of innovative waterfront projects and to position the TWRC to assume greater responsibility for the waterfront revitalization post 2011.

Risks and Challenges

Any large-scale infrastructure initiative requires a significant start-up period for planning, feasibility studies, public consultation and environmental assessment processes. As this work progresses, the focus of the TWRI is shifting from planning to implementation. Given the time to implement TWRI projects from the planning to the implementation phase, many initial project plans face increased costs, changes in scope, and the potential to lose momentum as other competing priorities emerge. Project timelines can also be affected by inter- and intra-governmental issues. As the federal investment in the TWRI is scheduled to sunset in 2011, the federal TWRI Secretariat is working collaboratively with the TWRC and the other orders of government to ensure the projects are completed within the specified timeframe.

Program Activity 4B – Harbourfront Corporation

Results Context

The primary objective of the HC Funding Program is to provide operational funding support to the HC until March 31, 2011. Such support will assist the HC in covering its fixed operational costs and will also facilitate HC's ability to leverage funding from other levels of government and pursue other revenue-generating strategies that allow the organization to provide the general public with continued access to cultural, recreational and educational programs and activities on the Toronto waterfront.

Planning Context

The federal TWRI Secretariat will continue to manage and monitor the contribution agreement with HC through the implementation of a risk monitoring plan and the review of financial and progress reports. The development of a plan for audit and evaluation activities will continue to support strong stewardship and administration of the HC Funding Program.

Current Status and Future Positioning

The federal contribution has stabilized the operational funding for HC. This will allow HC to seek additional resources from other sources to enhance its community programming. The federal contributions will also further the organization's development through the modernization of HC's administrative tools.

Risks and Challenges

The overall risk assessment for this program is low. The funds will be provided through a contribution agreement, which will specify the terms and conditions for their expenditure and applicable reporting on a quarterly basis.

However, there are external risks that may affect HC's ability to meet the overall objectives of the program. The potential impact of the occurrence of this group of risks on program delivery was assessed to be moderate, while the likelihood of occurrence was judged to be low.

- Unanticipated events or crises that affect audience attendance
- Negative factors affecting tourism
- General state of the economy as it affects consumer spending on recreation, arts and cultural activities
- Management ability to drive innovative programs and events
- Management capacity to sustain HC's national and international reputation
- Failure to exercise due diligence in financial management and the administration of activities

HC is a not-for-profit corporation and as such, its revenue-generating strategies must be balanced by expenditures on operations and management as well as programming activities. While the bulk of operational spending is considered to be fixed costs, these are subject to inflationary pressures as well as growth associated with the HC's entrepreneurial ventures.

SECTION III – SUPPLEMENTARY INFORMATION

Table 1: Departmental Links to Government of Canada Outcomes

Strategic Outcome: Canada's natural capital is restored, conserved, and enhanced.				
	Planned Spending ($ millions)			Alignment to Government of Canada Outcome Area
	2008-09	2009-10	2010-11	
Biodiversity is conserved and protected	141.0	135.9	131.6	Clean and Healthy Environment
Water is clean, safe and secure	94.8	100.7	92.7	
Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	32.9	30.7	29.9	
Strategic Outcome: Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians.				
	Planned Spending ($ millions)			Alignment to Government of Canada Outcome Area
	2008-09	2009-10	2010-11	
Improved knowledge and information on weather and environmental conditions influences decision-making	130.2	127.9	124.2	Clean and Healthy Environment
Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	153.0	154.0	149.4	
Strategic Outcome: Canadians and their environment are protected from the effects of pollution and waste.				
	Planned Spending ($ millions)			Alignment to Government of Canada Outcome Area
	2008-09	2009-10	2010-11	
Risks to Canadians, their health and their environment posed by toxic and other harmful substances are reduced	198.0	194.2	190.6	Clean and Healthy Environment
Canadians adopt sustainable consumption and production approaches	49.5	50.6	65.2	
Risks to Canadians, their health, and their environment from air pollutants and greenhouse gas emissions are reduced	152.0	156.9	153.5	
Strategic Outcome: Sustainable urban development and infrastructure renewal in the Toronto Waterfront area				
	Planned Spending ($ millions)			Alignment to Government of Canada Outcome Area
	2008-09	2009-10	2010-11	
Revitalization of the Toronto Waterfront	87 1	126.0	16.4	Strong Economic Growth
Harbourfront Corporation	5.0	5.0	5.0	A vibrant Canadian Culture and Heritage

Table 2: Sustainable Development Strategy

Environment Canada's Sustainable Development Strategy (SDS) 2007-2009 highlights key commitments to be undertaken in support of departmental and federal strategic goals during that three year period. These commitments reflect our overall approach to furthering sustainable development, which centres on strengthening the Department's capacity to integrate social and economic considerations into our decision-making processes and continuing to provide the environmental information, programs and services that enable Canadians to better integrate the true value of the environment into their decision making.

As we continue to implement our strategy, our key area of focus is ensuring that progress toward reaching our sustainable development goals also supports departmental Strategic Outcomes. To this effect, the Sustainable Development Strategy now builds on the departmental Program Activity Architecture and aligns each sustainable development commitment to a departmental Strategic Outcome or to Internal Services supporting the departmental Strategic Outcomes:

1. Strategic Outcome 1	Canadians and their environment are protected from the effects of pollution and waste
2. Strategic Outcome 2	Weather and environmental predictions and services reduce risks and contribute to the well-being of Canadians
3. Strategic Outcome 3	Canada's natural capital is restored, conserved and enhanced
4. Internal Services	Integration and Enabling Services contribute to achieving departmental Strategic Outcomes

Each of these goals is supported by intermediate and shorter-term outcomes under the Sustainable Development Strategy, as outlined in the logic model that follows. Performance measures are currently in place at the level of activities to support sustainable development commitments. Performance measures at the intermediate and strategic outcome levels will be those established for the departmental Program Activity Architecture.

Each commitment is tagged to one or more of the six federal sustainable development goals (for details, please refer to www.sdinfo.gc.ca/reports/en/sd_guide/c2.cfm#s2_5). This enables us to advance sustainable development at the federal level while concurrently working to achieve departmental Strategic Outcomes.

In response to a recommendation of the 2007 Report of the Commissioner of the Environment and Sustainable Development, Environment Canada committed to conduct, in collaboration with other departments, a thorough review to identify means of improving the government's approach to sustainable development strategies. We are therefore acting on our commitment to provide leadership, guidance and coordination of the federal Sustainable Development Strategy process by exploring options to promote

greater government-wide coherence and effectiveness in achieving sustainable development.

Logic Model

Attain the highest level of environmental quality as a means to enhance the health and well-being of Canadians, preserve our natural environment, and advance our long-term competitiveness for current and future generations			
1. Canadians and their environment are protected from the effects of pollution and waste	**2. Weather and environmental services reduce risks and contribute to the well-being of Canadians**	**3. Canada's natural capital is restored, conserved, and enhanced**	**4. Integration and Enabling Services contribute to achieving departmental Strategic Outcomes**
1.1 Risks to Canadians, their health, and their environment from toxic and other harmful substances, air pollutants and greenhouse gas emissions are reduced	2.1 Improved knowledge and information on weather and environmental conditions influences decision-making	3.1 Biodiversity is conserved and protected	4.1 Integrated policy advice, communications and information strategies enable effective decision-making
1.2. Canadians adopt sustainable consumption and production approaches	2.2 Canadians are informed of, and respond appropriately to, current and predicted environmental conditions	3.2 Water is clean, safe and secure	4.2 Relations with other governments and partners are effectively managed in support of environmental priorities
		3.3 Canadians adopt approaches that ensure the sustainable use and management of natural capital and working landscapes	4.3 High quality corporate services and advice enable the Department to meet its strategic objectives
Outcomes and Commitments as outlined in Environment Canada's 2007-2009 Sustainable Development Strategy (please see www.ec.gc.ca/sd-dd_consult/SDS2007/index_e.cfm)			

Other Supplementary Tables

The following supplementary tables are available electronically. They can be found on the Treasury Board Secretariat website at www.tbs-sct.gc.ca/est-pre/20082009/p3a_e.asp

- Details of Transfer Payments
- Evaluations
- Foundation (Conditional Grants)
- Green Procurement
- Horizontal Initiatives
- Internal Audits
- Progress Toward the Department's Regulatory Plan
- Services Received without Charge
- Sources of Respendable and Non-Respendable Revenue
- Status Report on Major Crown Projects
- Summary of Capital Spending by Program Activity
- User Fees

SECTION IV – OTHER ITEMS OF INTEREST

Strategic Integration Activities

Description

Clear, consistent and integrated departmental policy advice, coordinated interactions with partners and stakeholders and effective communication are important tools to help Environment Canada deliver on its mandate and commitments.

Environment Canada is leading the development of federal strategies to integrate environmental sustainability into government-wide policy priorities in a concrete manner. As part of this work, the Department is advancing policies and programs that are focused, results-oriented and that recognize the inextricable linkages between the environment, our economic competitiveness and the health of Canadians.

Environment Canada's work to develop a unified departmental policy approach is organized into two program areas:

- Integrated policy advice, communications and information strategies enable effective decision-making.
- Relations with other governments and partners are effectively managed in support of environmental priorities.

Plans and Priorities

Over the next three years, Environment Canada plans to focus on the following:

- Achieving departmental coherence in delivering and communicating environmental policy and program outcomes. Work will include implementing the Government's Clean Air Agenda to reduce both greenhouse gas emissions and air pollution. Government of Canada regulations and investments, coupled with actions being taken by provincial and territorial governments, will result in a 20 percent reduction in greenhouse gas emissions by 2020 from 2006 emissions levels.

- Continuing to lead Canada's international efforts to reduce greenhouse gas emissions, especially with regards to the design of a post-2012 climate change agreement that will engage all significant emitters while considering the national circumstances of member countries. Delivering tangible reductions in the emission of global greenhouse gases.

- Advancing and implementing the Action Plan for Clean Water, with investments in the Great Lakes, Lake Simcoe and Lake Winnipeg, and developing regulations to address the issue of municipal wastewater effluent.

- Strengthening environmental enforcement, through a 50 percent increase in the number of enforcement officers, as announced in Budget 2007.

- Improving the government's approach to sustainable development strategies.

- Improving how Environment Canada engages provincial and territorial governments, stakeholders and citizens in policy development and sustainable actions. The Department plans to advance the development of a national approach through collaboration with provinces and territories to achieve results; develop a strategy and tools to systematically and consistently engage key stakeholders in policy development and environmental education; and effectively communicate the strategic environmental framework to Canadians.

- Strengthening Environment Canada's strategic approach to its international activities through identification of international priorities that support the Department in its efforts to achieve environmental results for Canadians. As part of this strategic approach, and in response to a recommendation from the Commissioner of the Environment and Sustainable Development, the Department also plans to improve its reporting to Canadians on progress achieved on international environmental agreements. This will be done through future planning and performance reports as well as the Department's website.

- Advancing a Canadian environmental sustainability indicators initiative as a first component of a broader state-of-the-environment indicator and information strategy. The Department also plans to move forward on national environmental objectives as core policy tools to guide long-term departmental priority-setting and specific policy deliverables.

- Delivering analytical and evidentiary support to demonstrate explicit linkages between the environment and the economy, to allow for informed decision-making on environmental issues and the building of a policy-research-communications strategy to proactively communicate important environmental information to Canadians.

Planning Context

Integrated policy advice, communications and information strategies enable effective decision-making

A key priority is to improve the coordination of the existing but dispersed policy capacity of the Department in order to work more effectively and bring department-wide perspectives and scientific evidence to bear on all major policy work. Increased focus will be placed on policy research and economic analysis, and on strengthening the linkages between science and policy.

Moving forward on the environmental agenda, Environment Canada will coordinate and implement integrated communications strategies in support of departmental priorities and the Government's actions on the Clean Air Agenda, the Action Plan for Clean Water, the Conservation Agenda, and the Chemicals Management Plan. Regulation and enforcement

as well as information on meteorological services will be proactively communicated to Canadians. Increased attention to the development of a post-2012 international approach to climate change and a greater emphasis on communicating the federal Science and Technology Strategy will also mobilize communications. Advertising on consumer incentives will add another dimension to climate change communications and the concrete actions this government is taking to preserve and protect the environment.

Improving the coordination and strategic direction of Environment Canada's education and engagement activities is also an important priority. Emphasis will be placed on particular target groups where greater return can be expected by understanding their needs and challenges, and working to address them.

Environment Canada will also develop and implement a grants and contributions management framework. In order to ensure that Environment Canada is accountable for all that is carried out, a departmental reporting strategy will be defined and implemented to deliver on strategic reporting products. Lastly, Environment Canada will continue to strengthen strategic departmental approaches to science and technology.

In order to reach these important goals, key partners will be identified and approached, in particular those that are better positioned than Environment Canada to deliver education and engagement activities because they have a deeper and broader reach.

Environment Canada's indicator-related work is being repositioned to provide better management of environmental and environment-related data within the Department; enhanced comparability of the available data and the mechanisms by which these data are made available; and data and information that are more relevant to departmental priorities as well as indicators that can be used to communicate environmental implications to citizens, policy makers and decision-makers. The Department will continue to develop the partnerships, principles and technologies required to integrate disparate environmental data and information in a consistent, credible and timely manner.

Environment Canada will work towards the implementation of its Sustainable Development Strategy 2007–2009, as well as the refining of associated action plans and performance measures. More broadly, Environment Canada, in collaboration with other government departments, is conducting a thorough and documented review that identifies means to improve the Government's approach to sustainable development.

Advance strategic approaches to science and technology within the Department and externally

Environment Canada's ability to fulfill its mandate is fundamentally linked to science. To help ensure that Environment Canada has the science needed to support sound environmental decision-making, a departmental Science Plan has been established. The Department is committed to moving forward with the implementation of this Plan, and it will work to integrate the Department's Technology Plan with the Science Plan to create a single, cohesive departmental science and technology strategy. To deliver on its Science

Plan commitments, the Department will work to advance its integrated environmental monitoring and prediction agenda both internally, through work under a new departmental working group dedicated to integrated monitoring, and inter-departmentally, through its work on developing an integrated approach to monitoring in the Arctic. The Department will also work to address common science needs and opportunities identified through a series of six regional science fora recently held across the country. It is also critical to communicate Environment Canada's success in generating tangible environmental, social and economic benefits through its science and technology activities. To this end, work will be undertaken to improve tracking and communication of the impact of the Department's science and technology.

Improving the effectiveness with which science informs policy development is core to the Department's business. Environment Canada will enhance practical mechanisms for strengthening science-policy linkages, and the Department will use science-policy liaising functions to help improve targeting of departmental science and technology results internally and to decision-makers.

As an active member of the federal science and technology community, Environment Canada will continue to contribute to federal science and technology policy. The Department will work with its federal partners to implement the new federal science and technology strategy, Mobilizing Science and Technology to Canada's Advantage. It identifies environmental science and technology as a priority research area, and seeks to leverage Canada's existing strengths in this field to deliver results for Canadians. Environment Canada is a key player in environmental research both in Canada and internationally, and it will use its significant scientific and technological capacity to help advance environmental research and development collaboration and networking in support of the federal science and technology strategy.

Relations with other governments and partners are effectively managed in support of environmental priorities

Environment Canada does not achieve environmental outcomes on its own. Advancing departmental priorities such as clean air, climate change and chemicals management will require close cooperation with external players in the economy and society. This program area focuses on managing partnerships and working relationships with provincial and territorial governments, protecting and promoting Canada's environmental interests internationally, and engaging Aboriginal peoples and stakeholders in Canada's environmental agenda.

Environment Canada's stakeholder and consultations work advances constructive consultations and participation in departmental priorities, and strengthens our relationships with key partners and stakeholders, including industry, non-governmental organizations (NGOs), Aboriginal governments and organizations, market influencers and opinion leaders. A strong policy framework for consultations and Aboriginal involvement was developed over the past year to guide the Department, and this year's activities will focus on implementing these policies by providing the tools and services

needed to inform Environment Canada's consultations and ensure effective engagement with Aboriginal peoples.

Environment Canada's work under federal-provincial/territorial relations is being repositioned to focus on the most important departmental priorities, in particular clean air and climate change. Because provinces and territories share responsibility for environmental management with the federal government, their active engagement is essential to ensure the successful implementation of policy across Canada. The oversight and coordination of federal-provincial/territorial relations is, therefore, key to supporting the implementation of Environment Canada's agenda both on a national basis and on a regional or bilateral basis within a national context.

In the international context, Environment Canada's activities and engagement will increasingly be focused on those activities that clearly support departmental priorities. The Department will work to define priority issues to ensure that its international activities are focused on those key countries and international institutions that offer the greatest opportunities to achieve environmental and health benefits for Canadians.

A key priority issue will be Canada's contribution towards the design of a post-2012 global climate change agreement under the United Nations Framework Convention on Climate Change that will engage all significant greenhouse gas emitting nations while also considering countries' national circumstances. Outside of the United Nations, the Department will also be leading Canada's engagement in key multilateral partnerships on climate change, such as the Asia-Pacific Partnership on Clean Development and Climate, the Major Economies Process on Energy Security and Climate Change and numerous other international technology-focused partnerships. Through engagement in these partnerships, Canada is advancing work on a global climate change agreement, exploring the capacity of existing technologies to reduce emissions intensity in the near term, funding research into innovative low-emission technologies for the future and implementing practical actions to advance the development and use of clean technology that will achieve real-world emissions reductions.

The Commissioner of the Environment and Sustainable Development recently recommended that information on objectives, means, expected results and progress on international environmental priorities be provided to Parliament and Canadians. Environment Canada has various reporting methods, and in response to the Commissioner's recommendation, the Department will use future Reports on Plans and Priorities, the Departmental Performance Report, and the Department's website to ensure that information on objectives, means and results on Environment Canada-led international environmental agreements are transparently and effectively reported. The Department regularly reports and updates progress on international environmental agreements on individual Environment Canada branch public websites, where appropriate, and will update the Department's International Affairs website to reflect information on international environmental cooperation agreements.

Corporate Services and Corporate Management Activities

Description

Integrated and effective corporate services help Environment Canada to carry out its mandate. The Department continues to transform its way of doing business in order to be better positioned to play the central role it was given by Parliament to coordinate the policies and programs of the Government of Canada with respect to the preservation and enhancement of the quality of the natural environment. Environment Canada's internal transformation agenda helps the Department deliver on its goal to protect the health of Canadians, preserve our natural environment and strengthen Canada's long-term competitiveness.

Environment Canada is putting significant effort into repositioning its enabling programs and services in order to better support results-based management and internal governance changes in a way that allows the Department to successfully address the environmental priorities of Canadians. This work is organized into two program areas:

- High-quality corporate services and advice enable the Department to meet its strategic objectives.
- Strategic management support enables the Department to meet its objectives.

Plans and Priorities

Over the next three years, Environment Canada plans to pursue the following plans and priorities:

1. Establish a viable foundation for its enabling programs and services, with a focus on addressing high-risk areas in human resources, finance, administration, information management and information technology (IM & IT). Environment Canada continues to build management and staff capacity in human resources, finance, administration, and IM & IT so that corporate functions can appropriately assist the Department in delivering results. This work is expected to include implementing strategies to address critical departmental risks—specifically, better recruitment and retention plans, training for enabling staff and departmental managers, and implementation of a "one-department" approach for the provision of core services.

2. Ensure the delivery of essential financial, administrative, human resources, corporate management, and IM & IT services to address mission-critical, operational and key governance needs across Environment Canada. Other priorities include work to support the greening of federal government operations; the implementation of a new Human Resources Management System (HRMS), PeopleSoft V8.9, and of a finance / materiel management system (Oracle/SAP), aligned with the government-wide

Corporate Administrative Shared Services (CASS) initiative; and progress towards integrated human resources and financial information. A performance measurement and monitoring framework will be developed and implemented to support results-based objectives for human resources management.

Planning Context

The Department is completing the transformation process that will enable it to fully plan, manage and report by results. The transformation has involved changing the results structure (and the Program Activity Architecture), establishing new management structures and processes, and restructuring the organization.

These changes promote integrated management and decision-making by clarifying results and strategic directions for the Department's programs. Financial and human resources are clearly linked to results through a planning process that connects capacity to work. Performance information will support informed departmental decisions and transparent and balanced public reporting.

Results in this area are aimed at transforming Environment Canada's management framework in order to strengthen control and accountability; provide high-quality service, support and systems related to governance and program delivery; and support key departmental and government-wide management initiatives. The Department's corporate services activities are organized as follows:

- Corporate management and planning support departmental progress on forecasting and results.
- Human resources are managed effectively and strategically in support of departmental objectives.
- Financial management frameworks are established and high-quality financial services are provided.
- Administration and assets management enable effective, efficient, accountable and environmentally responsible departmental activities.
- Information management frameworks are being established, high-quality IM & IT leadership is being provided, and both information and technology are managed as critical enabling assets.

Department-wide Services

Planning

Environment Canada has adopted a "one-department" approach to planning that aligns priority-setting and resource allocation functions to the new Program Activity Architecture. This approach significantly enhances the overall transparency of proposed plans and priorities, enabling senior executive direction, engagement and strategic decision-making.

The planning process integrates corporate planning and decision-making and ensures that internal decision-making on priorities is aligned to annual reporting to Parliament

through the Report on Plans and Priorities. Senior managers undertake business planning through results-based committees and teams. Managers at all levels from across the Department are engaged in the process to ensure consistent application of planning and reporting requirements. National management meetings are held to provide opportunities for managers to work through significant planning tasks on a collaborative basis.

Information Management and Information Technology

As a result of Environment Canada's internal transformation, most of the Department's information management and information technology (IM & IT) staff are managed within the Chief Information Officer Branch (CIOB). A small number of IM & IT staff with highly specialized program area knowledge and skills remains "embedded" in program areas.

The objective of the CIOB is to provide effective, efficient and equitable levels of IM & IT services to all areas of program delivery across the Department, and to further develop the capacity to provide the coherent, authoritative and trusted information systems needed to achieve government and departmental objectives.

Management efforts in the IM & IT domains are directed towards the re-alignment of IM & IT resources and services with departmental priorities to ensure that the best outcomes are achieved by using existing resources and infrastructure where possible and making strategic investments in evolving technologies and capacity as required.

Information management and information technology are key enablers of Environment Canada Program Activities both in terms of providing strategic advice and leadership, as well as hardware and software infrastructure support. This is reflected in the following manner:

- Across all Strategic Outcome areas, through the provision of basic infrastructure and support to "general-use" software applications (e.g. e-mail, office application suites, corporate finance and human resource applications)

- Within specific Strategic Outcome areas, through the provision of specialized hardware infrastructure in support of Program Activities, as well as through the provision of services in support of these activities, including development, implementation and maintenance of specialized application software for the collection, storage, analysis and dissemination of environmental data and products; and, data and information management services

Efforts are focused on ensuring that Environment Canada's data and information holdings can be and are treated as critical departmental assets. This involves providing leadership in information management through the implementation of an integrated IM plan for the Department, by establishing key IM services and products, by promoting policies and best practices for the management of information, and by implementing and maintaining technologies to support the function. Policies and best practices will reflect

Government of Canada IM policies, identified best practices and technologies in use in industry and other organizations, and Environment Canada practices and requirements.

Ongoing investment will be required to support the existing infrastructure as well as the new IM policy-related functions to ensure that the CIOB is able to respond to new work requirements and evolving technologies being introduced in the workplace. The ongoing development of a comprehensive IM & IT architecture will help to guide these efforts by fostering the adoption and use of consistent policies, standards and technologies that comply with those in use in the Government of Canada. The architecture will be supplemented by other efforts to ensure the efficient and effective application of IM & IT in the Department.

In order to enhance our ability to provide effective, efficient and equitable levels of service to other parts of the Department, the CIOB will be implementing new standardized operational practices to assure clarity and predictability for the provision of services to program areas within Environment Canada.

Maintenance of hardware infrastructure will continue to reflect "greening" policies to promote the effective use and life-cycle management of IT while reducing the potential negative environmental impacts associated with hardware use. Through these policies, Environment Canada strives to maintain its leadership role in this area.

Environment Canada has been selected as one of the five "early adopter" departments advancing the Treasury Board of Canada Secretariat-led Corporate and Administrative Shared Services (CASS) initiative. Shared services are viewed as a way of producing more effective, efficient and economical delivery of common services within and across government departments.

As part of that initiative, participating departments will migrate their human resource management systems to the PeopleSoft suite of applications and migrate their finance and materiel management systems to a common system (Oracle / SAP).

Legal Services

The Department of Justice Canada is responsible for the legal affairs of the Government as a whole and for providing legal services to individual departments and agencies. Services provided by the Department of Justice Canada include providing legal advice, preparing legal documents, drafting legislation and regulations, and managing or conducting litigation.

The Department of Justice Canada provides legal services to Environment Canada primarily through Environment Canada's Legal Services unit. The Department of Justice Canada also provides services through its Environmental Drafting Services Section, and through the Federal Prosecution Service and other units located at Justice headquarters and in the regions.

High-quality legal advice enables Environment Canada to take decisions that are based on a thorough understanding of its legal authorities and relevant legal risks. Legal Services is committed to deliver results by ensuring that Environment Canada has access to appropriate levels of legal expertise, by identifying primary legal risks to the Department, and by making legal training available to Environment Canada officials where needs arise.

Like Environment Canada's other corporate functions, Environment Canada Legal Services adopts a "one-department" model with the aim of providing effective and efficient legal support for departmental priorities and objectives.

Audit and Evaluation

Audits and evaluations are used to improve the effectiveness and efficiency of departmental policies, programs and management. The audit and evaluation functions are carried out under the authority of the *Federal Accountability Act* (December 2006), the Treasury Board Policy on Internal Audit (April 2006) and the Treasury Board Evaluation Policy (February 1, 2001). The *Federal Accountability Act* underscores the importance of the audit and evaluation functions in providing the necessary support to the Deputy Minister in his role as accounting officer.

Internal audits and evaluations are determined through a risk-based planning process and carried out by the Audit and Evaluation Branch in accordance with Treasury Board standards. The Audit and Evaluation Branch, reporting directly to the Deputy Minister, is responsible for providing the Deputy Minister and senior management with objective, independent and evidence-based information, assurance and advice on management practices, controls and information, and the performance of programs, policies and initiatives to enhance results-oriented and accountable management.

Building and maintaining strong and independent internal audit and evaluation functions remains a priority. With additional resources provided by Treasury Board, the Department is enhancing its capacity in both areas. In addition, Treasury Board has approved the creation of a three-member, independent External Audit Advisory Committee to advise the Deputy Minister and provide oversight to the internal audit function. The Department has also established a new Departmental Evaluation Committee, chaired by the Deputy Minister, to provide oversight to the evaluation function. These changes in governance will further strengthen the capacity of the Audit and Evaluation Branch to carry out its responsibilities in an objective and professional manner.

Human Resources

The Human Resources Branch, as a key enabling function, will continue to enhance its services to effectively and strategically support departmental objectives and ultimately provide service to Canadians. Human Resources will offer core human resources management services to managers and employees to build a stronger foundation and move towards a modernized and integrated people management regime.

Gaps between people capacity and business needs with a focus on employment equity, learning, staffing and recruitment, and official languages will be clearly identified with tools developed by the Human Resources Branch that support managers in their human resources planning. The Human Resources Branch will continue to improve and standardize business processes in line with central initiatives (Canada Public Service Agency / Corporate and Administrative Shared Services), the Clerk of the Privy Council's renewal agenda with a focus on fast-track staffing, and in support of the implementation of PeopleSoft v.8.9.

Performance measurement and reporting capacity will be further developed through the introduction of standard reports and the implementation of performance measurement frameworks for staffing, classification and other disciplines. The Human Resources community and departmental managers will further develop their capacity in the area of human resources management policies and practices to ensure that Environment Canada is responsive to the departmental mandate and to Canadians.

Official Languages

Under the *Official Languages Act*, Environment Canada's obligations include providing bilingual services to the public and ensuring that the language of work provisions are respected at all times.

The Department is committed to ensuring that members of the public can exercise their right to communicate with it, and obtain services in the official language of their choice and to create and maintain, for its employees, a work environment that is conducive to the use of both official languages. To this effect, Environment Canada identifies, on an ongoing basis, all employees that require language training to meet the language requirements of their position and ensures that they have access to and complete such training within the timeframe prescribed by the *Public Service Official Languages Exclusion Approval Order*. The Department also encourages employees to acquire or improve second official language skills in order to advance their careers and possibly fill bilingual positions in the future as part of their personal development plans and in accordance with the Departmental Guidelines on Second Language Learning for Career Development Purposes.

The Department also ensures that English-speaking and French-speaking Canadians have equal opportunities for employment and advancement and that the Department's workforce reflects the presence of both official languages communities in Canada. In addition, the Department is taking positive steps to enhance the vitality of English and French minority communities and support their development.